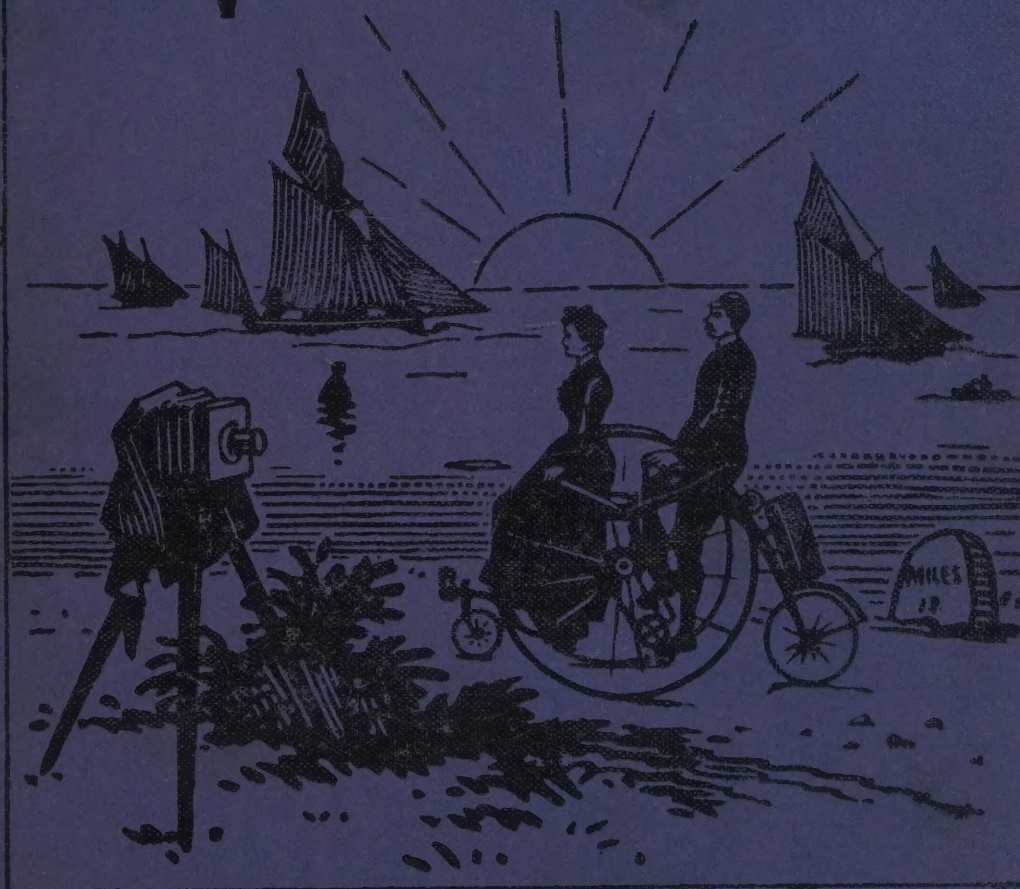


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# The AMATEUR PHOTOGRAPHER

Edited By CHARLES W. HASTINGS

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[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

At the Convention last week, in addition to the business already mentioned, there were several papers read. We shall hope to publish "Imagining and Imaging," by Mr. P. H. Newman, which is really a criticism upon Dr. Emerson's views in photography, and a review of the gifted doctor's book, "Naturalistic Photography." Mr. Andrew Pringle was at home in his treatment of "The Record of Photo-Micrography." He took much pains to show the work done in the advancement of photo-micrography during the past fifty years or more. He paid a high compliment to Dr. Crookshank's "Photography of Bacteria," a book which has been, and is of great service to the student. Mr. Gambier Bolton's paper on "Animal Photography: Its Difficulties, Uses, and Abuses," was full of information to those anxious to succeed in the application of photography to the study of natural history. Mr. Frieze Greene is nothing if not original, and his paper entitled "Suggestions" might, with advantage, be named "Surprises." He has invented a camera which, "by merely turning a handle, will make a series of negatives on a band of sensitive material at the rate of 600 a minute," and he stated that "There would be no difficulty in doubling or trebling that number"; but he says, "At present there is no occasion to take pictures at shorter intervals than one-fifth of a second, which corresponds more nearly to our persistence of vision." This camera surely outstrips any previous invention, but time will show us whether it is likely to be of any practical use.

Two very excellent reports given are upon "Standard Threads for Screws of Lenses and Flanges," and upon "Weights and Measures." Both these reports and the discussions that followed prove conclusively that the Council of the Convention and their sub-Committees are endeavouring to do useful work. We should certainly like to see the Photographic Society of Great Britain, the Camera Club, and the Convention working in unity, or delegates from each called, to form a Committee to settle and determine questions of dispute. If such a Committee be not formed some new and powerful organisation will be established which shall act as a Court of Appeal and Board of Examiners, both on the scientific and art side of photography. It will be interesting to know how far the Camera Club may take up the broad work of a Photographic Institute when settled in their new premises, which rumour says are

to be ready for occupation by the winter season. The Convention have done good work, and as a society to enable members to enjoy photographic rambles it cannot be surpassed, but membership is not universal, and many should join who have not. Next year, we understand, they will visit Bath, and no doubt will receive a hearty welcome at the hands of the Corporation of that ancient city. We cordially wish the Convention every success.

\* \* \* \*

A CORRESPONDENT writes us that there is a "dark-room" on the beach at Brighton, where plates can be changed.

\* \* \* \*

ONE of our subscribers in Paris, writes:—"Having read that amateur photographers will be allowed to take views in this city without an authorisation from the Prefet de Police, I take the liberty of asking you to inform your readers of this fact, as they will be able to commence operations at once upon arrival without proceeding to the usual formalities so common in continental cities."

\* \* \* \*

PHOTOGRAPHY is practised all over the world. This week's mail brings us a letter from Upper Burma, in which the writer says:—"Amateur photography ought to get on out here. About every third man one meets has a camera, and very decent negatives are to be seen, but printing seems to be the stumbling block of most. I believe in hot bath platino, and though I have no idea what a first-class print should be, I am fairly satisfied with my results. I send you a couple." We have seen many prints entered at exhibitions with which they would compare most favourably.

\* \* \* \*

THE July issue of the PHOTOGRAPHIC QUARTERLY will be in the hands of readers as soon as this paper, and we trust that the public verdict will be that the excellence, both in illustrations and papers, is maintained. We are exceedingly pleased with the chromo-collotype, or photo-mechanical print in colours, prepared for us by Messrs. Waterlow and Sons, Limited, which has been produced without retouching, by combining three images in yellow, blue and red pigments respectively, printed from negatives taken by Mr. F. Bligh Bond in plates rendered specially sensitive to light of the com-



plimentary colour, and exposed through suitable colour screens. In this illustration great contrast of colour and of vivid hue has been aimed at. We believe that we are right in saying that nothing of the kind has ever been published, and the photographic world are much indebted to Mr. Bond for his researches and experiments. In his article upon photography in natural colours he has given much to the world, and such work as his is likely to supersede ordinary coloured lithography in many ways. The frontispiece to the number of the *QUARTERLY* is a capital reproduction of a photograph of "The Sphinx," produced from a negative of Major J. F. Notts, by the Woodburytype Company, and is, so far as we know, an entirely new application of the process, the print being on the same paper, and without mounting, as the title page of the book. Experiments have been carried on for us by Mr. Fry, the company's very courteous manager, and he has at last succeeded in giving us Woodbury prints on ordinary paper with perfectly clean margin. It will be admitted, we feel sure, that both these pictures are excellent. The papers published in the current number of the *QUARTERLY* have been already mentioned in these columns. From the first number the *QUARTERLY* has been a marked success, and in order to keep up the high standard of excellence in illustrations and literary matter, the price will be increased with the October number to *two shillings*. In starting this publication the question of cost was not considered, but only the determination to publish the *best* photographic publication in the world; this, it is admitted on all sides, has been achieved, and the proprietors are of course anxious now to re-imburse themselves for the time and money spent in bringing out the *QUARTERLY*.

\* \* \* \*

WHILST upon the topic of publications associated with this paper, we would mention that it is intended to make very radical changes in the style and matter of the *PHOTOGRAPHIC SOCIETIES REPORTER*, and to make it at once the organ of societies and a first-class illustrated monthly photographic magazine. The societies and their doings will receive attention, but papers read before them will be edited and abstracts of most of them published, and the news of societies condensed. The official announcements will be continued, but in a different form. The photographs contributed to the *AMATEUR PHOTOGRAPHER* "Monthly Competitions," will be criticised in the *REPORTER*, and as a rule the prize picture will form the subject for the frontispiece. Contributed articles from first-class men will be published, and the book got up first-class, on good paper and well printed. The aim will be to make it interesting to the ordinary worker in photographs, and not to limit it to the work of photographic societies as heretofore. To accomplish this end, the price will be advanced to *one shilling*, for which sum it will be sent post free.

\* \* \* \*

At the moment of going to press, we have received the prospectus of the exhibition being promoted by the Edinburgh Photographic Society. The exhibition will be under the patronage of H.R.H. the Duke of Edinburgh, the Lord Provost, and many lords and gentlemen distinguished in arts, sciences, and letters. The President of the Executive Council is Mr. Hippolyte F. Blanc, and the Secretary, Mr. Thomas Barclay, of 180, Dalkeith Road, Edinburgh. There are two Vice-Presidents, Dr. Drinkwater, F.C.S., and Mr. W. T. Bashford. These gentlemen will be aided by a Treasurer, Mr. James McGlashan, and nineteen members of council. The exhibition will be held, as before announced, in the galleries of the Royal Scottish Academy, from November, 1890, to January, 1891. The Exhibition is to be opened on the 14th of November. There will be twenty-one classes in all, and in each class one silver, and

one bronze medal will be placed at the disposal of the judges. The Council will appoint five qualified gentlemen to act as judges, and will announce their names at an early date. In addition to the prizes already mentioned there will be given a gold medal for the picture which possesses the highest degree of merit, irrespective of size or subject. A course of lectures will be given during the continuance of the exhibition. The conditions for exhibitors are "easy," and we suppose that with the exception of Class 14, "Photographs, any subject, confined to amateur members of the Edinburgh Photographic Society," there will be no division between amateur and professional. The exhibition will be run upon much the same lines as that of the Photographic Society of Great Britain, but the pictures will be classed.

\* \* \* \*

LAST week, when mentioning the Liverpool Photographic Exhibition (1891), we omitted to say that all the commissions received from the sale of copies of the exhibited photographs will be handed over to the Photographers' Benevolent Association.

\* \* \* \*

WE were quite pleased and surprised to hear that the Hackney Photographic Society has now nearly 100 members. During the session 1889-1890 many excellent papers have been read by, amongst others, Messrs. Wall, Hubert, Hoddle, Biss, Fenton Jones, Birt Acres, Hart, Carpenter, Drs. Gerard Smith, Roland Smith, Kibbler, etc., etc. The Society are forming a library, and Mr. W. Fenton Jones, the Hon. Secretary (6, Victoria Street, King Edward Road, Hackney, N.E.), will, we are sure, be very pleased to receive any books our subscribers may be able to spare.

\* \* \* \*

A CORRESPONDENT from Yokohama writes:—"I am very anxious to go in for some of the competitions which you mention in your valuable paper, which I take in regularly and read with much interest."



CORRECTION.—"J. R." writes us: "Owing possibly to my indistinct writing, Tylar's R.R. lens appears in my letter (page 471) as recommended by Mr. Abraham to have fitted to the "Ideal" camera. It should be "Taylor's" (of Leicester).

POSTAL PORTFOLIO SOCIETY.—We are asked to state that Messrs. H. A. Halliwell, George F. Firth, and E. Howden are getting up a Postal Portfolio Society, under the name of Light and Co., for the circulation and criticism of photographs, the work of amateurs. Particulars will be forwarded on application to the Hon. Secretary, Mr. Ernest Howden, of Haverland House, Wakefield, enclosing stamped envelope for reply.

"ENCYCLOPEDIA OF PHOTOGRAPHY." By Walter E. Woodbury. (Iliffe and Sons.)—It was only to be expected that the success which Wall's "Dictionary of Photography" has met with should prompt an imitator to bring out a similar work. There is but little originality in this world. But the publishers can claim to have gone about the work of issuing the *Encyclopædia* in a novel if expensive form. It is well printed, and will make another useful addition to the photographic library.

FALLOWFIELD'S NEW PREMISES.—Mr. Fallowfield writes:—"Allow me to avail myself of your widely read paper to convey to my customers and correspondents my sincere regret that during the removal of my head-quarters from Lambeth to these Central Stores (Charing Cross Road), it has been quite out of my power to execute orders and answer queries with my usual promptness. Although my contractors carried out the arrangements admirably and my whole staff have worked early and late, it was impossible to foresee such a steady downpour of rain, and the removal of 120 van loads of goods, all requiring most careful handling and oversight in transit, proved an even greater task than I had anticipated, and for two days, only orders of recognised urgency were despatched. By the time this appears in print, I hope my new Central Stores will be in full swing, and I fear few will realise the magnitude of the undertaking until they favour me with a call."



## Letters to the Editor.

### BUYER AND SELLER.

SIR,—Now that so many are complaining of the treatment they have received at the hands of photographic manufacturers and dealers, I cannot help stating that my experience, dating from about eight years ago, when I once again began to work at photography, after an interval of many years, has been quite the reverse. I have always met with the utmost courtesy; no complaint I have ever made but has received a speedy reply, and when it has been possible, compensation has been made. Once I had a defective gross of plates from the manufacturer. I wrote to point out the defects. He at once asked me to return all the plates of the batch I had left. I did so, and received, carriage paid, not only as many plates as I returned, but an extra box or two to make up for those which I had already exposed. On another occasion I purchased of a dealer two boxes of 5 by 4 plates. They were only good over about 4 by 3. I wrote to the manufacturers, pointing out the defects, but saying that, as I had used them for experimental purposes, it did not matter much. I got an answer by return, saying that these plates had been sent out many months before, and had probably deteriorated from careless storing by the dealer; but they sent me the full number of fresh plates, carriage paid. Some iron backs I had on another occasion were not light-tight. The manufacturer at once sent me a fresh set. Once I had some platinotype paper on which I could not get good tones. I sent up a print, asking the cause of my failure; the answer was: It seemed somewhat unaccountable—it might be from some fault of the paper, or, perhaps, was due from my not having kept it sufficiently dry. But half as many sheets as I had had were sent me free without my returning any. When I was engaged in some experiments on lenses I asked one of our opticians to lend me some of his. All I asked for were willingly sent at once. Again, when I was going to deliver a lecture, and wanted some lenses, I wrote to a dealer to ask if he could lend me some, mentioning what I wanted. My request was readily granted; what he had not in stock he wrote to the makers for, and when one firm only refused to lend, he, at some inconvenience, made personal application at the factory. Altogether he placed about £30 worth at my disposal, without my paying anything except the carriage. In several cases my letters have opened up a pleasant correspondence, and much useful information has been given to me. I am not, however, unreasonable enough to send an order for some small article, which possibly the dealer may not have in stock, and expect it forwarded by return. No doubt there are dealers and dealers; but I believe if one sends one's orders to the well-known houses, and in case of anything being wrong, writes courteously to the dealer or manufacturer, instead of sending the complaints, in the first instance, to the photographic journals, in most cases a courteous answer will be returned. I have mentioned only a few instances, and have avoided giving names; but I cannot refrain from bearing testimony in favour of those who have treated me so well. When I receive letters, as I have done, saying, "Don't pay for this till you have thoroughly tried it, and if it does not quite suit you in all respects, pray do not hesitate to return it." I think I have nothing to complain of. I will only add that there is no reason why I should be treated with more consideration than any other amateur.—I am, etc.,

T. PERKINS.

SIR,—I shall be very much surprised if the sixth paragraph of your issue of the 27th inst., does not bring down upon your head the proverbial "hundred of bricks." Individually, I take exception to the dictum that the buyer, even though it be "not often," filches the seller, simply because he has scarcely a chance of doing so were he so minded. The simple story of the sixpence told by "Electra" shows that the seller knows very well how to take care of himself. But let me illustrate.

Some time ago I wrote to a certain seller and asked what would be the price of a hand-camera, minus the lens, as I was already supplied with several of Dallmeyer's of the identical focus recommended to be used with it. In reply this seller wrote me that "he should charge the same price for the camera whether I took the lens or not."

I naturally argued either that the lens was worthless, or that the camera was dear at the price. Who was filching here? Surely not the buyer!

2. In the town where I reside is a certain seller who was in the habit of charging threepence upon each packet of plates beyond the advertised prices. This, to a large extent has been stopped, but he will do it when he can to the unwary. Who filches here?

3. I recently purchased a packet of a dozen sheets of sensitised paper, and I assure you on my honour that not one sheet was fit to use; three were hopelessly creased, one had a large piece torn out of it, and the rest (in fact all) were much discoloured. I ask again who filched here? I could multiply cases and quote your own recent numbers in confirmation of my statement, but to my thinking the experience of your present correspondents, "J. R." and "Electra" is conclusive.

"J. R." buys a camera, tries it, writes upon it, "mene, mene, tekél, upharsin," offers to return it *toute suite* at a reduction of £2, which the seller refuses. Why? Because the thing was probably not worth that amount in the first instance.

If a loss would not have accrued to the seller, the offer would have (humanly speaking) been accepted as the camera could have been sold again at full price. Was the buyer filching in this case?

Sir, you hope that manufacturers and dealers will not hesitate to write to you, but not one word of hope that the poor over-charged amateurs would also write to air their grievances which are manifold and oppressive.

The great fault of these sellers is, that they make haste to be rich, at whose expense they care not, forgetting the words of the prophet Jeremiah that "he that getteth riches and not by right, shall leave them in the midst of his days, and at his end shall be a fool."—Yours truly,

A BUYER.

June 28th, 1890.

SIR,—Being a regular subscriber to your journal, I have read the recent correspondence *re* "Buyer and Seller." I quite agree with "Subscriber to the AMATEUR PHOTOGRAPHER" that an organisation of the photographic army is much needed. There is no doubt that the prices asked for photographic apparatus, etc., by makers and dealers are excessive, and there is a very wide field for a co-operative photographic company, there being no such establishment that I am aware of up to the present time. I am sure a business of this kind is peculiarly adapted to co-operative principles.

As an amateur photographer, I should be pleased to receive communications from any of your readers who would be disposed to co-operate in the formation of such a company, so that it might be established on a firm basis.—I am, yours, etc.,

286, New Cross Road, New Cross,

H. C. HAMILTON.

June 30th, 1890.

SIR,—With reference to the correspondence herein, it may interest your readers to learn that the suggestion made by "A Subscriber to the AMATEUR PHOTOGRAPHER from No. 1" has been already acted upon, inasmuch as a limited company to carry on such a co-operative business is actually in course of formation, and will, I think, shortly invite subscriptions. I send you the address of the solicitor who has the matter in hand. You are at liberty to give it to any of your subscribers.—Yours, etc.,

A PHOTOGRAPHIC SOCIETY'S SECRETARY.

June 30th, 1890.

\* \* \* \*

### DISCS OF GLASS AS CONDENSERS.

SIR,—In reply to "E. M. H." on the above subject, I have never tried the system of which he speaks, and I hope that some one with personal experience may answer his queries, but in case you should have no better reply than mine, will you allow me to say that I think his letter sufficiently indicates the nature of the difficulty into which he has fallen. In the first place the condenser seems to be of very long focus, as is shown by his only getting a bright disc when the lamp was three feet from the condenser, and as, indeed, one might expect from condensers made up with glasses filled with liquid.

In the second place, making his trials at random, he has managed so to place his objective that the long conjugate focus is where the short one should be, and vice versa. Assuming that he has got his condenser fairly evenly illuminated, though at a distance of three feet the light would be but feeble, he has used the illuminated negative as the distant object and got a small image on the screen as in the camera; whereas he wants the objective near the negative (about three inches) and the screen some feet away, so as to get an enlarged image, as in the magic



lantern. I should advise him to proceed as follows:—First, set up the condenser with a ground-glass close in front of it and the lamp behind (about three feet away), then move the lamp as near the condenser as will give an evenly and brightly illuminated ground-glass. Then replace the ground-glass by his negative and a screen two feet away, by placing the objective three inches away from the negative, and moving backwards and forwards slightly he will get a properly focussed, though probably not very brilliant, image on the screen. If his portrait combination is of five inches equivalent focus, and the screen two feet from the lens, that would require about six and one-third inches between the negative and the optical centre of his lens, or allowing for length of mount, somewhere about three inches from back of lens to negative, and would give an enlargement of about four times. If the enlargement is not enough, he must remove the screen a little farther, and lens a little nearer negative, but if his image is not bright enough, he must make it smaller by reversing the process.—I am, yours, etc., W. A. W.

\* \* \* \*

#### PYRO v. HYDROQUINONE AND EIKONOGEN.

SIR,—As an amateur who has dabbled at developing negatives for the last eighteen years or so, may I strongly advise my sister and brother amateurs to "stick to pyro as a developer."

Last year I ruined almost all my negatives with hydroquinone. This season I began with eikonogen, and found it so very unsatisfactory and slow that I soon went back to my dear old and well-tried friend "pyro," and have already got some delightful negatives, which with two ounces of the ammonia to one ounce of the pyro solution (as amateurs generally under-expose) flashed out in no time and were almost entirely under control.

Until something really very superior to pyro as a developer is discovered I have no intention of again forsaking my old true love.

Will any other amateurs give their experiences? I have found "self-toned" sensitised paper most satisfactory and save a lot of trouble.

CAPTAIN.

\* \* \* \*

#### THE KODAK.

SIR,—Having read Mr. Walker's letter in your last issue, in which he states that he has endeavoured to test the sincerity of Mr. Norris's statement as to the cost of a No. 1 Kodak lens by offering to receive from him 1,000 at the price he had stated they could be obtained for, and having received no reply he increased his offer to double the amount, and that he would receive 1,000 pairs of lenses at sixpence per pair.

Mr. Norris is a buyer of lenses, I presume, and not a seller.

Perhaps you will allow me to draw Mr. Walker's attention to the following extract from the *British Journal Almanac* for 1889, page 579: "Purchase a number of single lenses, commencing with one having three inches for its focal length. Those following should have focal length advancing by a quarter of an inch up to six inches; then by half inches to ten, and after this by inches to twenty. This gives a series of lenses of, say, one inch diameter, which may be purchased at from one penny to twopence each at any optician's."

The above is from the pen of Sir David Salomons.

I would also draw his attention to another extract from the same *Journal Almanac* of the present year, page 595, and from the pen of J. Trail Taylor:—

"The simple non-achromatic lens, made of one piece of glass only, is now being resuscitated for detective work. The main difference between an achromatic and non-achromatic lens in photography is this: In the former the visual and chemical foci are brought to a focus on the same plane, whereas with the latter there is usually a distance equalling a thirtieth of the focus between these foci; hence, to obtain definition it is necessary, after making the image visually sharp on the ground-glass, that the sensitive plate be placed, not on that focal plane, but on one a thirtieth nearer to the lens. By adopting this precaution a very excellent degree of sharpness may be obtained. For cameras in which the focus is fixed, or is effected by measurements and without a ground-glass there seems no reason why simple lenses may not be employed. Nay, for that matter they are employed in hand-cameras, and that too somewhat extensively, as witness the Kodak, Lilliput, and other American cameras, as well as some others in this country. The simple lens can undoubtedly be made to produce extremely sharp work, capable of being several

times enlarged without falling off. Owing to its very simplicity the simple lens possesses excellence *sui generis*. There are fewest reflections from its surfaces, and it is thin, and therefore little absorbent of light."

To another extract I would draw his attention; it is from the same *Journal Almanac*, 1885, page 43, and from the pen of the same able writer:—

"If two simple lenses be employed instead of one only, and if these be mounted one at each end of a tube, convex sides out, with a stop in the middle, certain modifications of the resulting image takes place. The ray from the lens to the sensitive surface will emerge from the objective in a direction parallel to that at which it entered, and this parallelism forms the condition by which freedom from distortion is obtained, the lens being strictly rectilinear. A second change which has been induced by this duplicating of the lens consists in obtaining more perfect correction of all the oblique pencils, and, in consequence, a higher degree of refinement in the focus of these pencils ensues."

Perhaps Mr. Walker will now inform your readers whether the rectilinear lenses of the Kodak are of the non-achromatised description, or are they achromatic? I may state that Mr. J. Trail Taylor in a lecture on "Single Lenses," reported in the *British Journal of Photography*, March 16th, 1888, says that the cost of these simple lenses is 2d. each.

Mr. Walker will see from the extracts given that others besides Mr. Norris have made like statements.—Yours truly,

June 28th, 1890.

NEWCASTLE.

\* \* \* \*

#### PACKING DRY PLATES.

SIR,—I fully agree with Mr. Mann's letter on the great mistake, recommended from time to time, for amateurs to pack their plates with nothing between the films. Some long time back I saw some one advising it in your useful journal, and tried it on and off on several occasions, and not in such long journeys as our worthy friend Mr. Mann's plates took, but simply from North Wales, and each time I adopted it it was to my own vexation, as there was sure to be a delightful scratch on some particular portion of a favourite bit of scenery we had hoped to "fix" without such a beauty spot, so I discarded the practice for ever. Surely we amateurs cannot "teach" the plate makers, who are most particular for film not to touch film. As far as myself is concerned, I always use one make of plate, and in that make there is a piece of carefully-cut and level tissue paper, which I take care of, and "re-insert" it between my exposed plates, to find them without scratches when my "wanderings" have terminated.—Yours faithfully,

A. W. GOTTLIEB.

\* \* \* \*

#### CHEAP LENSES, ETC.

SIR,—Your correspondents now ventilating their grievances against manufacturers and dealers know little or nothing of mechanics; they seem to be under the impression that manufacturers and dealers are making immense fortunes out of them. Let "F. G. B." Mr. Norris, and a few others, with "A Subscriber to the AMATEUR PHOTOGRAPHER," and £100 thrown in, start a syndicate to produce the 20s. hand-camera—"F. G. B." suggests there is plenty of cheap practical labour to be had in this country without going to Germany—and let Mr. Norris give us the cost of production in their first, and I venture to say their last, balance-sheet. "F. G. B." acknowledges that he got ninety good results out of a hundred—sufficient to satisfy the most fastidious amateur—that he enjoyed two years of travel with the Kodak, and now, because some one has told him the cost of the lens was only 6d., he wants to annihilate Mr. Walker because he is under the impression that he paid a few shillings too much for two years' pleasure.

Amateurs may rest assured that in these days of keen competition they are not paying fancy prices. After deducting cost of production, advertising, and other expenses only known to those who have to pay, manufacturers have all their work to do to keep their heads above water. It is not the cost of the raw material, but the after-labour that costs the money. I could a tale unfold of many an unprincipled amateur, but I am pleased to confess they only average about five per cent. There are shabby sheep in every fold. There is one thing, not always thought of, that courtesy begets courtesy.—Yours, etc.,

CAMERA MAKER.



## ABRAHAM'S "IDEAL" CAMERA.

SIR,—I would not trouble you with a further reply to "J. R.," but for the question of truthfulness and fact involved, and in passing I may add that if the camera complained of was *not* the "Ideal," your correspondent had no right to state that it was. The "Ideal" having met with such high praise from the public and also from yourself, I am naturally unwilling to have its rapidly-increasing sale in any way checked by your correspondent's misstatements.

"J. R." *did not* write me about the camera being faulty. Had he done so, it would at once have been attended to. He *did* state that he was disappointed with the "Taylor" lens, but did not say or even infer for one moment that he was displeased with the working of the camera, as stated in his first letter to you.—I am, yours, etc.,

ROBERT ABRAHAM.

June 27th, 1890.

\* \* \* \*

## RICHMOND PHOTOGRAPHIC SOCIETY.

SIR,—With reference to my previous letters as to the formation of a photographic society for Richmond and the neighbourhood, I shall be much obliged if you will state in the next number of the AMATEUR PHOTOGRAPHER that a preliminary meeting will be held at 8 p.m. at the Railway Hotel, opposite the Richmond old station, on Monday next, the 7th July, at which I hope that all interested in the formation of the society will be present.—I am, yours, etc.,

E. G. RICHARDSON.

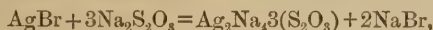
20, Hermitage Villas, Richmond, Surrey.

June 30th, 1890.

\* \* \* \*

## ACID FIXING BATH.

SIR,—Your correspondent, Mr. Walter de H. Birch, is quite right in absolving Captain Abney from the perpetration of an equation similar to the second in my letter of the 12th May last. It should of course read—



The mistake seems to have arisen through an error in the fair copy, and my attention was only called to it this morning when reading Mr. Birch's letter, in which a transcript of the equation appears.

Not wishing to trespass further on your valuable space than necessary, I will at once proceed to carry out Mr. Birch's suggestion by quoting a passage from the "Treatise," which eminently bears on the point under discussion. Captain Abney says on page 142, "It must be strongly impressed upon the student that two forms of double hyposulphites of silver and sodium are formed, one of which is soluble and the other insoluble. The soluble form undergoes a change in light, which renders it insoluble; hence, fixing the print in daylight should be avoided."

With regard to the solubility of the two silver hyposulphites, I must still maintain the order given in my letter of the 12th May last.—I remain yours faithfully,

C. J. DAVIES.

30th June, 1890.

\* \* \* \*

## EXHIBITION SWINDLES.

SIR,—My attention has been drawn to a letter headed "Exhibition Swindles," which appeared in your last issue. I am exceedingly sorry that Mr. Austin has had so much trouble about one medal out of the half-dozen awarded to him at the Hartlepool Exhibition, but must confess to feeling surprised that he did not try another of the Secretaries (there were three) when he found he received no satisfactory reply from Mr. Strafford, who has now left the town. Mr. Austin does not mention the number of the class to which his complaint refers, and I have written to him for this information, when the matter shall be looked into.

As a member of the Exhibition Committee, I repudiate the term "swindle" applied to our efforts, as well as your own summing up of the "whole business." So far as the prizes were concerned, I happen to know that there was nothing "unsatisfactory" about them, as the bulk were paid immediately the Exhibition closed, many even before. In some cases (and I assume Mr. Austin's medal comes under this category) private individuals and firms, interested in the fine arts, offered prizes; but, so far as the Committee know to the contrary, these also have been duly awarded. Because one of the Secretaries has

been rather unbusinesslike in conducting his correspondence, I think some line should be drawn between this and roguery, and before passing judgment it is generally prudent to hear both sides.—Yours, etc.,

J. W. SMYTH

(Hon. Treasurer to the Hartlepool Exhibition).

36, Milton Road, West Hartlepool,

June 30th, 1890.

\* \* \* \*

## CELLULOID FILMS.

SIR,—Our attention has been called to your "Science Notes" of June 20th, in which you state that "The Eastman rollable film consists of celluloid." If you will kindly refer to the numerous advertisements and notices of Messrs. Eastman, you will see their film is never described as "celluloid." This word (celluloid) is a registered trade mark, and the property of the Celluloid Manufacturing Company, Newark, New York, and can therefore only be applied to negative films made from material manufactured by them.

We shall feel extremely obliged if you will take the earliest opportunity of inserting this correction, as the film supplied by the Eastman Company is of entirely different material.—Yours very truly,

S. GUITERMAN AND Co.

(Sole Agents for the Celluloid Manufacturing Company).

5, Hart Street, Wood Street, London, E.C.

July 1st, 1890.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(The Yorkshire College, Victoria University).

(Continued from page 452, vol. xi.)

EXPERIMENT 30.—*Preparation of Oxygen.*—Grind together 25 grammes of potassium chlorate, 5 grammes of manganese dioxide, and 10 grammes of common salt, all previously dried at a gentle heat. The common salt undergoes no chemical change, but moderates the rapidity of the reaction and makes the evolution of the oxygen more regular. Introduce the mixture into a perfectly dry glass flask of a capacity of about 120 c.c. (4 ozs.), preferably with a round bottom. This flask is fitted with a good cork and a moderately wide delivery tube, bent in the manner shown in fig. 13. The flask is supported on a retort stand by means of a clamp or rings, and the end of the

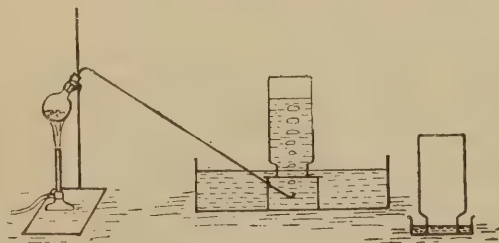


FIG. 13.

delivery tube passes below a small shelf under the water contained in the trough. This shelf supports the bottles or jars in which the oxygen is to be collected. Pickle bottles or wide-mouth bottles of any form, holding about 500 c.c. (1 lb.) of water, will do for this purpose. A small earthenware tray or tin canister lid will be required for each bottle to stand in after it has been filled.

Fill each bottle to the brim with water, and then, with the hand or a piece of card pressed firmly against its mouth, invert it and place it mouth downwards in the water in the trough. The bottle should remain completely filled with water. Now carefully heat the mixture in the flask by means of a Bunsen flame; bubbles of gas will escape from the end of the delivery tube and rise through the water in the trough. At first these consist of the air in the flask,



which expands when heated, but soon the oxygen begins to come off and drives all the air out of the flask. Hold a splint of wood with a spark on the end close to the surface of the water and over the stream of bubbles; as soon as the spark bursts into flame, the oxygen is sufficiently pure to collect. Now raise one of the bottles and bring it on to the shelf, *taking care not to lift its mouth above the surface of the water*. The gas will rise through the water in the bottle and collect at the top, gradually driving down the water. After a time you will have the bottle full of oxygen without any admixture of air. Now move the full bottle from the shelf with the left hand, *keeping its mouth under the water*, and place a second bottle on the shelf with the right hand. Then slip one of the trays under the surface of the water, bring it under the bottle full of gas, and lift the latter out of the trough and place it on the table. The bottle will then stand with its mouth in the water contained in the tray, and the escape of the gas on the entrance of air from the outside will be prevented. Fill six bottles this way. Before removing the source of heat and allowing the flask to cool, be careful to lift the end of the delivery tube out of the trough, or the water will run back into the flask and crack it. Keep the residue in the flask.

The arrangement used for collecting the oxygen is called the *pneumatic trough*. It can be applied in the case of all gases which are not absorbed or decomposed by water. By using mercury instead of water the method can be applied in the case of all gases, except those which attack mercury.

EXPERIMENT 31.—*Properties of Oxygen*.—Observe that the gas is colourless, and if pure has no smell. The fact that it is collected over water proves that it is not absorbed by water.

(a) Turn one of the bottles up, keep the tray pressed against its mouth. Introduce into the bottle a splint of wood with a spark on the end; *observe* that it bursts into flame. Introduce a lighted paper; *observe* that it burns more vigorously and with a brighter flame than in air.

(b) Place on a deflagrating spoon a piece of sulphur of the size of a small pea, heat it in a flame until it takes fire, and then introduce it into the second bottle of oxygen (fig. 14.) *Observe* that it burns with a much brighter flame than

in air, and continues to burn until all consumed. What has become of the sulphur? *Observe* that the gas now in the bottle has a very pungent suffocating odour. Pour into the bottle some weak solution of litmus; *observe* that the colour is changed from blue to red.



FIG. 14.

(c) Tie a lump of wood charcoal to a deflagrating spoon, heat it until it becomes red hot at one or two corners, and introduce it into the third jar of oxygen. The charcoal will burn much more vigorously than in air, perhaps with a shower of sparks, but after a time it will cease to burn. Now introduce into the jar a lighted taper; it will be extinguished. The charcoal ceased to burn because all the oxygen had been used up. What has become of it? *Observe* that the gas left in the bottle has no pungent smell. Pour into the bottle some clear lime water; it will become very milky. Oxygen itself does not turn lime water milky; try it with a fourth bottle. It follows that the gas which does turn the lime water milky has been formed by the burning of the charcoal in the oxygen.

(d) Straighten a piece of magnesium ribbon 15 c.m. (6 inches) long, hold one end in the crucible tongs, light the other end, and introduce it into the fifth bottle of oxygen. It will burn with dazzling brilliancy, and leave a white solid which very easily crumbles to powder. Pour a small quan-

tity of water into the bottle, shake it up in the white substance, and then add some litmus solution to which you have previously added *just sufficient* dilute sulphuric acid to turn it red, *and no more*. The red litmus will be turned blue. Notice that the product formed by the burning of the magnesium acts on litmus in just the opposite way to the product formed by the burning of sulphur.

(e) Round one end of a piece of iron or steel wire (about 15 c.m. long) (a broken watch-spring is best) wrap two or three turns of cotton or very fine string, and dip it into a small quantity of melted sulphur. Into the last bottle of oxygen pour water to a depth of not less than 2½ c.m. (1 inch). Now light the sulphur on the end of the iron and introduce it into the oxygen; the burning sulphur will set fire to the iron, and the latter will burn brilliantly, a dark brown substance being deposited on the sides of the bottle, whilst small fused globules fall through the water at the bottom.

From these experiments we learn that oxygen is an energetic supporter of combustion; substances which will burn in air will burn much more brilliantly in oxygen, whilst some substances, like iron, which will not burn at all in the air, burn quite readily in oxygen.

In all these cases we obtain a product very different in its properties from the oxygen or the other original substance; gases from the solids, carbon, and sulphur; a white powder from the brilliant metal magnesium. In each case chemical combination has taken place between the oxygen and the other substance; the combustion is the act of combination, and the heat and light which are developed are results of the combination.

The substance formed when charcoal (which is almost pure carbon) burns in oxygen, is *carbon dioxide*,  $\text{CO}_2$ , a compound of 12 parts of carbon with 32 of oxygen, or one atom of carbon with two atoms of oxygen; sulphur forms *sulphur dioxide*,  $\text{SO}_2$ , a compound of 32 parts of sulphur with 32 parts of oxygen, or one atom of sulphur with two atoms of oxygen; magnesium forms *magnesium oxide*,  $\text{MgO}$ , which consists of one atom of oxygen combined with one atom of magnesium; iron forms *triferrous tetroxide*,  $\text{Fe}_3\text{O}_4$ .

(To be continued.)

## How to Make Photographic Rambles Remunerative.

BY T. BAKER.

REMUNERATION, especially where amateur photographers are concerned, may be looked at from several points of view, and although it may not be well to deal with all of them, it is well to constantly bear in mind remuneration may not only come in a commercial sense—although this is very useful—but to get the mind taken even for a short time from the daily round, the common task is remunerative. To have a trained eye to quickly take in the beautiful in nature is remunerative, and to have a trained tongue, not only in the way of asking people to get out of or into the way as they may be a help or hindrance, is remunerative; also, who can make the most feeble attempts with camera and plates without feeling he is being furnished with that which will make him more ready of speech and facile of pen. Coming in contact as I do with many amateur and professional photographers, perhaps I may drop a word, by the way, as to how photographic rambles may be made remunerative, not so much, perhaps, to societies of which I know nothing, but to the many single individuals who are rambling at this season.

If you study the list of dark-rooms from week to week it will appear plain. No one need be in doubt as to if a photographic ramble is practicable; but how few remember that most of those who are on the dark-rooms register are business men who must make hay while the sun shines, and although ready, willing, and glad to give every information, and frequently to act as guide,



there is such a thing as going at a time when the individual is known to be much engaged asking useless questions, and giving all sorts of advice in the way of suggestions when quite unacquainted with local circumstances. Being on the register of dark-rooms, I have had much pleasure in answering some questions lately, but on two occasions an amateur has come in at a part of the day when even a stranger might imagine it was a busy time, and on the first every question was answered, and an appointment made for a time when the room and dishes and everything else would be ready; but the appointment was not kept. But a few days after, the same amateur turns up at an equally busy time and asks for "another look round to see if dark-room is likely to prove suitable," and is now wondering, probably, why it is on the register if it is pronounced by its owner as unsuitable.

Do not let this hint prevent anyone who really wants information asking for it, and also sometimes when not sure how to approach an individual. I have found it useful to suggest that some particular point of view would make a fine photograph, and this will generally call forth not only information and offers of assistance, but more frequently than I could comply with the request have I been offered orders to take houses, churches, groups, etc., all through appealing gently for information. Many ramblers content themselves with taking views which are usually taken by professionals, and feel some qualms when exhibiting their work if someone produces a picture they have purchased, and which is better finished. Does not this suggest the idea that while it may be well to listen to a local guide as to where to photograph, it is well to exercise common sense and original ideas as to how it shall be done? If the pictures turn out even fairly well, only those who have tried the plan know what good results are secured from other than a photographic point of view, if a print is sent to the local guide, or even to the individual who may live in or near the spot taken. How very useful it is for amateurs and others not only to try and get but give information, and it has several times proved useful to hear an amateur say—Have you seen this make of shutter? or, How do you like this focus? for, however much or little any of us have done, we all feel how much we have to learn.

## The "Amateur Photographer" Ladies' Photographic Competition.

WHEN we first projected the "Ladies' Competition," we did not think that it would be the very marked success that it has been. The fact of the large number of ladies who entered in our monthly and other competitions, prompted us to propose a competition entirely devoted to ladies' work. The result has been successful beyond our most sanguine hopes, and the work contributed has been generally of very high merit; especially we would mention the amount of care displayed in selection of point of view. It will be quite impossible for us to criticise all the photographs sent in, but we shall mention some of the best work, and the apparatus, and chemicals used by competitors.

Before we commence our remarks upon the actual photographs, we should like to say a word in order to thank the Editor of the *Lady's Pictorial* for the very handsome notice he gave the competition in his columns, and further, we have to acknowledge most gratefully the loan of the blocks with which he illustrated his article. His kindly action has enabled us to reproduce Miss E. Dora Anderson's photographs, and one by Miss Clarissa Miles, and also has been the means of making the work done by the AMATEUR PHOTOGRAPHER known in many distinguished circles.

In all there were thirty-five competitors and quite 300 photographs. In addition to the photographs that are reproduced, Miss Anderson contributed several others. "In the Olden Time," two girls in quaint costume standing by a hall clock of the last century; "After the Ball"; "Olive," a charming study of a young girl; "The Little Daughter," a young

mother with baby in arms, well lighted and perfectly natural in pose; and "Studies—Little Sisters." Miss Anderson is a most careful worker, using a Grubb lens with Wratten and Wainwright's plates developed with pyro and soda. The photograph on page 19 of mother and children is from two negatives, and has been very successfully printed, the only fault being that the candle was not lighted.

Miss Clarissa Miles has been successful at several exhibitions, and her portrait studies are excellent, especially "Shall I Sing Another Song," "Miss Mary Miles," and "The Hon. Catherine Beresford." The photograph "Meditation" is, in our opinion, unnaturally sad. The prints are, perhaps, slightly too deep in tone. Miss Miles uses a lens of the London Stereoscopic Company's Black-band series; her studies were taken with the lens working at  $f/16$  upon Wratten and Wainwright's plates developed with hydroquinone.

Miss A. V. Abingdon Bayly sends twelve photographs; the best work is to be found in the "Old Breton Woman" (102) and the "Old Sabot Maker," an admirable and characteristic pair. Three excellent landscapes are "Still Waters," the "Old Mill Pond"—in this picture the very strong reflection of a girl's figure in the pond does not improve it—and a "River Scene." These form a pretty trio. All the pictures are well chosen and the subjects balanced, showing a knowledge of picture-making. Miss Bayly uses an Optimus R.R. Ilford plates, developed chiefly with pyro and ammonia.

Miss Ellen Boyer Brown contributes seven photographs, of which "The Village," a print about 10 by 5, is exceedingly good, next to which we would place "The Smithy," and a "Loose Shoe." This worker uses a Ross No. 8, and a Meritoire lens; the photographs have been taken on Thomas and Ilford plates, developed, some with hydroquinone, ammonia, pyro, ferrous oxalate, etc.

Miss F. S. James's work is very irregular; we like "Chipped, I declare," and "Sans Souci." The subjects are well posed, making bright and pleasing pictures. "Seated one day at the Organ" is good as a composition, but the lighting might be improved. "I remember an old Garden," in this picture undue prominence is given to the figure, and the garden is made quite subservient. In the white dress all detail is lost, and what might have been a pretty picture is spoilt by far too much attention being paid to the securing a portrait. "View of Matlock Bath" is rather a pretty little view. A Morley's lens has been used and Ilford plates, developed with pyro and ammonia.

Miss Mary Alice Henderson. The best of this contributor's work are the "Pic-nic," "Mountain Tramp," and the "24th Chasseurs *a pied* returned from a march." Most of the work was done with a Voigtlander's Euryscope, and Marion's Britannia plates. In all the pictures there has been slight over-exposure.

Miss Susan Hodgson sends us some work which artistically is good, but technically is bad; the best are "A Rose Garden" and "The Fireside." "Artichokes" is fairly good, but the colour of the prints is really too dreadful; they are like nothing we have ever seen before. It is quite impossible for us even to hazard a guess as to how they have been obtained. The work is so exceedingly different to the admirable pictures contributed by Mrs. Brian Hodgson that we shall hope for better things in our next competition.

Mrs. Frances S. Clarke has sent one or two capital little studies; the best two are "Doggy is Poorly," and "Doggy is Better Now." They show us, in the first, a child giving "doggy" medicine, and in the second "doggy" sitting up ready for a game. "Sugar," another study of a dog, is



good. "The Artist's Dream," in which a ghost effect is introduced to illustrate the lines,

"Baffled, weary, and disheartened,  
Still he mused and dreamed of fame,"

makes a very fair picture rather crowded with accessory.

Mrs. Clarke uses a Wray lens, Isochromatic, Monkhoven, and Fry's plates, developed with hydroquinone. The photographs are all mounted with great care, and neatly titled.

Miss Ellen Graham Stone's work is not up to her usual average, but we have reason to believe that there is a cause for it which has been beyond her control. The four pictures "Spring," "Summer," "Autumn," and "Winter," have not a happy sequence; the best is "Summer," a portrait of a lovely child surrounded by Virginia creeper. The head is slightly strained, but the negative must indeed be excellent to produce such an admirable print. Miss Stone uses a Ross, Doublet, Ilford, and Derby plates, and develops with pyro and ammonia. Most of the prints are in "Aristotype" paper, and in the one specially referred to, a delightful tone has been obtained.

Miss M. J. Hands. To this lady we must award the "wooden spoon." Her photographs are really very poor, and we should heartily commend to her study any elementary book upon photography before entering another competition.

Mrs. Marie E. Marriott has sent several pretty pictures, well chosen views; but had they all been of the high quality of "Sunset," a study on the Mersey, she would have run very close for third prize. The effect is admirable, and the lighting perfect. The photographs are nearly all taken with an Optimus R.R. lens, Ilford, Thomas's, and Atkinson's plates being used.

Mrs. Mary T. Ward contributes one, "Lowestoft Harbour," after Davison, and another, "Calm Day, Lowestoft," both really very fair pictures. The others entered do not call for any special comment. They have all been taken with a Dallmeyer R.R. lens on Ilford and Thomas's plates, developed some with pyro and ammonia, and the remainder with hydroquinone.

Miss Fanny M. Pownall sends eight pictures. The best are "Brother Austin," "Calves," and "Richmond Bridge," all taken with a Ross Universal lens on Ilford plates.

Mrs. Margaret Cole sends us some capital groups of charity children, "Faith, Hope, and Charity," "Going to Church," "A Cooking Lesson," "A Drill Class," etc., all very good. The grouping is in every case admirable, and the technique quite perfect. All these photographs are taken with a Ross lens on Ilford plates, developed with hydroquinone.

Miss Margaret Watson sends twelve views of most interesting places in or near Florence. The prints are rather weak, but the selection of views leaves nothing to be desired. We should advise the use of a somewhat larger stop and shorter exposure.

Miss E. Annesley has been most successful in securing good views at Biarritz, especially "The Virgin's Rock." Of her other pictures the best is "Arrival of a Herring Boat." These are all taken with a Dallmeyer lens on Ilford plates, developed with Beach's developer.

Miss E. Sybilla Bird's landscapes, seven in all, are very fair, and shows much care in selection.

Mrs. Louisa Mary Wall sends eleven photographs, all rather hard prints, the best being a "Sunny Morning." The others are of quite ordinary subjects, showing no special care in selection.

Miss Rose Ward has sent in bromide prints, which do not, we fear, do justice to her negatives. The views principally in and around Arundel are well chosen, but the re-

sulting prints are hard and sooty. Morley's R.R. lens has been used, and Ilford and Fry's plates.

Miss A. M. Williamson contributes twelve pictures. The best is certainly "Evening, Windermere," the others have no claim to be good examples of photography. Many of them are over-exposed, and the view not carefully chosen.

Miss Nellie Thornton has the advantage of having a father most clever at figure and genre studies. He has at several times contributed to our competitions, and we can trace the hand of the teacher in the excellent work produced by his daughter. "Mother's Help," "An Imp of Mischief," and "Waiting for Father" are most admirable studies, and are deserving of very special commendation. The work has been done with a Dallmeyer's R.R. lens on Ilford plates, developed with hydroquinone.

Miss Jane Cleland Burns gives us six photographs. The best is certainly "Potatoe Packing." The others are scarcely up to the standard of work sent in, but show thought and care. Miss Burns works a Dallmeyer R.R. lens with Ilford plates.

Miss Mary E. Ward contributes rather well-chosen views of "Wells Cathedral" and "Tintern Abbey." "Southern-down" is also a very fair picture.

Miss Agnes Caroline Burns is good enough to forward seven photographs to the Competition. We unhesitatingly place "The Dairy Maid" first. Amongst the others are "The Trysting Gate," "Carting Logs," and "The Duck Pond." We shall, we are sure, see better work from both the Misses Burns in our next competition. They are enthusiastic workers in photography, and are destined to take a prominent place amongst lady workers.

Miss Claire Vaughan Davies has turned her attention to practical photography, and sends us several views in South Wales. It is not often that a lady recognises the use of photographs of large works, but in "Steel Works, Milford Haven," she has made a picture out of a somewhat uninteresting subject; the clouds make a fine setting to the work and bustle of men. "Hampton-on-Thames" is another good view. Several in and around Brecon are well done. The lens used for all has been a Ross R.S. with Ilford plates, developed with hydroquinone.

Miss Philipson devotes her attention entirely to views at Tynemouth, taken with a Dallmeyer lens on Mawson's plates. Her photographs are of very fair technical worth, but the study of points of view are wanting of close attention.

Miss Henriette Beatson has some rather pretty little hand-camera shots. The best is, perhaps, "A la Teutatian" — "Monsieur, Madame, and Bébé." This competitor uses a Darlet lens and Lumiere's plates, developed with hydroquinone.

Misses Madge and Ruth Ibbetson send a joint contribution, consisting of twelve photographs, the best of which are "Ilfracombe," at high and low tide. They are very good, well chosen, and show great care in all the manipulatory processes. "Cottage, Lechhampton," is also good, but the foliage in foreground is unduly prominent. "Vevey Switzerland" is another well-executed photograph, with grand cloud effect. "Watermouth Harbour" shows great care in arranging the subject. As a whole they are amongst the best sent in. These ladies work with a Stereoscopic Company's R.R. lens on Alney's, Thomas's, Wratten's, and Stereoscopic Company's plates, developed with pyro and carbonate soda and pyro and ammonia.

We have very shortly touched upon nearly all the work sent into the Competition, which we said in our opening remarks has far surpassed our most sanguine anticipations.



The following is the article which appeared in the *Lady's Pictorial* when the pictures were published:—

"That the art of photography, raised as it is now by means of unceasing improvements and inventions in the apparatus, chemicals, and processes employed, far above the level of a mere

peculiarly equipped for success in the art. And it is gratifying to know that it is now being practised with pleasure and the best possible results, as may be judged by the reproduction of certain photographs taken by lady prize-winners in a comprehensive competition, which are given on this page.

The first Ladies' Photographic Competition, organised by that



[MISS E. D. ANDERSON.]

*I once had a sweet little doll, dears,  
The prettiest doll in the world;*

*Her cheeks were so red and so white, dears,  
And her hair was charmingly curled.*

mechanical science or skilful craft, should grow more and more popular with the leisured and cultured classes was a matter of course; but the spread of the practice amongst ladies is almost as surprising as it is gratifying. It is only during the past few years that the lady-amateur photographer has been a familiar figure, yet of all the pleasant methods of passing time, not without profit as well as charm, photography is surely one of the first to commend itself to ladies, whose artistic instincts, keen perceptive powers, and delicate manipulation mark them out as

excellent and indispensable publication, THE AMATEUR PHOTOGRAPHER, held last week, originated in the fact that in the last annual Home Portraiture Competition a large number of ladies contributed specimens of their work, many of them proving of considerable merit; and one lady, Mrs. Brian Hodgson, carried off the third prize in a competition in which more than a thousand photographs were entered. This pleasing and significant fact promptly impressed the editor, Mr. Charles W. Hastings, whose keen judgment and unwearied enthusiasm in all



matters connected with photography accorded the new departure a cordial welcome, and he at once determined to project a competition entirely restricted to the work of ladies practising photography as amateurs, and the result justified his action, as thirty-five entries were soon made, and eventually some three hundred photographs sent in for competition.

tion of a set of four called "An Illustrated Poem," and a further pair, also illustrating a poem. The second prize, a silver medal, was won by Miss Clarissa Miles, 49, Lennox Gardens, W., for six clever, highly-finished and charming works, from which we have chosen a portrait of the Hon. Catherine Beresford for reproduction. The winner of the third prize, a bronze medal, was Miss



[MISS E. D. ANDERSON.]

*But I lost my poor little doll, dears,  
As I played in the heath one day;*

*And I cried for her more than a week, dears,  
But I never could find where she lay.*

On Thursday of last week these photographs were submitted at the Hotel Victoria to a critical jury of three ladies, all well known in the art world, namely, Mrs. Eveleen Myers—sister of Miss Dorothy Tennant—Miss Edith Scannell, and Miss Ida Verner, with the result that the first prize, a handsome gold medal, was awarded to Miss E. D. Anderson, Waverley Abbey, Farnham, Surrey, for a collection of eleven beautiful and thoroughly artistic photographs, from which we give a reproduc-

A. V. Abingdon Bayly, Foxlease, Camberley, who submitted a dozen delightful specimens of her work, the subjects being admirably varied and interesting. In the case of each of the prize winners artistic feeling as well as technical excellence of execution was apparent, and they are to be cordially congratulated alike upon their work and its results.

Much of the other work submitted for competition was of excellent quality, and manifested the care and attention to com-



position which is an inevitable condition when photography is taken up by ladies of artistic taste. Among the exhibitors, much of whose work showed a degree of merit worthy of special recognition, although it did not obtain prizes, were Miss F. S. James, whose "Seated one day at the organ" was an able and careful composition; Miss Mary Alice Henderson, who sent

ing; Mrs. Marie E. Marriott, a charming study of "Sunset on the Mersey" and other subjects, all conspicuously well chosen and well executed; Miss Fanny M. Pownall, a clever study of a monk, round and jovial, at the church door, called "Brother Austin," a charming picture of "Richmond Bridge," etc.; some delightful studies of charity school girls in their white mob caps



[MISS E. D. ANDERSON.]

*I found my poor little doll, dears,  
As I played in the heath one day*

*Folks say she is terribly changed, dears,  
For her paint is all washed away.*

a set of very artistic photographs of Nice scenery; Mrs. S. Francis Clarke for studies of domestic animals, notably, a pair of capital pictures, "Doggy is poorly," and "Doggy is better now," which reminded us rather of the famous "Who said 'Rats'?" Miss Ellen Graham Stone, who sent in a series of studies of the seasons, etc., of which "Spring: Wild cherry blossom," "Summer: Virginia Creeper," "Autumn: In Betchworth Churchyard," and "Winter: Leafless boughs," were all charm-

and kerchiefs, notably "Faith, Hope, and Charity," and "The Dolls' Tea-party," by Mrs. Margaret Cole; a number of views taken in Florence by Miss Margaret Watson; some clever seascapes and views at Biarritz, by Miss Annesley; interesting and naturalistic figure studies, such as "Mother's Help," "An Imp of Mischief," "Waiting for Father," etc., by Miss Nellie Thornton; some striking and characteristic pictures of Scotchvillage life by Miss Jane Cleland Burns; a set of views in South Wales, by



Miss Mary E. Ward; some delightful pastoral studies, by Miss Agnes Caroline Burns; some pretty pictures by Miss Claire Vaughan Davis, in particular "Hampton-on-Thames"; some charming Marseilles views, taken by Miss Henrietta Beatson, of which "In the Gloaming" is particularly effective; some vigorous studies of village life by Miss Ellen Boyer Brown; curious and

Park," and "Views near Lynmouth," by Miss Rose Wood; an excellent "Snowy Morning," view in a country lane, by Mrs. Louisa M. Wall, who also sent a charming "View of the Dart from Holne Bridge"; some excellent views of Welsh scenery, by Miss M. J. Hinds; some good light and shade studies, by Miss Beatrice M. Wilson, amongst them a really clever "The Avenue,



[MISS] E. D. ANDERSON.

*And her arm trodden off by the cows, dears,  
And her hair not the least bit curled.*

*Yet for old sake's sake she is still, dears,  
The prettiest doll in the world.*

clever "Still Life" photographs by Miss F. T. James; a good dog study, "Ben," by Miss Louisa A. H. Malcolm; "Evening, Windermere," a strong study of lake and sky, by Miss M. A. Williamson; views of "The Black Pond, Claremont, near Esher," full of artistic merit, by Miss E. Sybilla Bird; charming "Dartmoor Views," by Mrs. Ellen M. Jessop; "The Moat, Bittesing," with the pollard oak flinging out its bare wild arms over the stream, by Misses Margaret and Florence Ward; "Arundel

Milton Grange"; a soft and artistic "Bridle-path, Waddon," by Mrs. L. B. Turney; some views of Tynemouth, by Miss Philipson; a knowing terrier, "Don't Touch," by Miss E. Beecroft; a curious study of leaves, in "Artichokes," by Miss Susan Hodgson; a pleasant "Bright Spring Morning," by Mrs. Brockholes; and a realistic scene at a mountain *auberge*, "Mountain Tramps: On our way home," by Miss M. A. Henderson.



We have not attempted to give any technical description, because the Editor of the AMATEUR PHOTOGRAPHER will doubt-

We might mention that the Editor of the AMATEUR PHOTOGRAPHER also pilots a monthly magazine, the PHOTOGRAPHIC



MISS CLARISSA MILES.

Hon. Catherine Beresford.

less give full particulars in his own journal. But we think we have said enough to satisfy our readers that photography can be practised with success by ladies in all classes of society.

REPORTER, and a very high-class, admirably got-up journal, the PHOTOGRAPHIC QUARTERLY, in connection with which we inspected last week a very beautiful illustration which is to adorn



the July number of the QUARTERLY. This picture is the nearest approach to photography in natural colours that we have seen.

by the Collotype process in three printings, and is a marvel of colouring and artistic effect.



[MISS E. D. ANDERSON.

*One kiss to each—one only, then back on tip-top high;  
“Dear Dollies, don’t be lonely—sleep sweet till morning bright.”*

*Down the dark stairs unbulbly, two little nightgowns creep,  
To see that Dollies truly are safe and sound asleep.*

It is produced from three negatives made by Mr. Bligh Bond, each negative having been made sensitive severally to the red, blue, and yellow rays of the spectrum. The illustration is printed

Mr. Hastings is an enthusiast about amateur photography, and his publications are in the front rank of art and scientific journalism, as he and his publishers (Hazell, Watson, and Viney, Ltd.)



are are fully alive to the rapid growth of photography and its application to the arts and sciences. That photography will

the future amateur photography bids fair to become quite one of the most charming, interesting, and appropriate recreations and



[MISS E. D. ANDERSON.

*She'll bend to kiss them sleeping, on little prayer she'll say:  
"God bless them through the darkness: God bless them all the day."*

*And up the stairs, at midnight, mamma will softly creep,  
To see if HER two Dollies are also sound asleep."*

become more and more popular with ladies is a foregone conclusion, and Mr. Hastings may be congratulated upon his success in stirring up this interest in the past, and upon the many signs that in

pursuits of English ladies, whether purely, as a matter of artistic pleasure, or as a means of securing permanent records of places and people interesting or dear to them for associations' sake.



With every detail and requisite of the work now easily obtainable and fully explained, we should be surprised indeed to hear that amateur photography was not making rapid strides. But, as a matter of fact, it is, and not the least satisfactory proof of this is the result of such a competition as that organised by Mr. Hastings, and carried out by him with such marked success.

It is sometimes thought, but only by those who are really ignorant of the subject, that the question of art and artistic feeling does not, and cannot, enter into photography at all. Nothing could be more erroneous or unjust. The detail of composition, alone, as well as all the delicate methods of accentuating some portions of the subject and throwing others into the background, afford ample opportunity for the display of taste and nice discrimination, while the selection of subjects and the method of treating them in such a way as to ensure the most effective and beautiful results can only be carried out to perfection by the aid of the true artistic instinct. The lady amateur photographer should be an artist in sentiment if not in the technical sense, and then, and then only, her productions will entirely merit description as works of art."

## Amateur Photographer's Hospital Pictures and Albums.

WE have, within the last few months, sent out hospital albums and parcels of photographs to several hospitals and homes, whose acknowledgments we append. As will be seen from the following letters, we have distributed photographs far and wide, providing amusement for the sick and suffering.

We shall continue to provide parcels of photographs for hospitals and charitable institutions with the kind aid of our readers, whom we trust will co-operate with us by sending us unmounted photographs, or albums, or sums of money for the purchase of same. We shall be pleased to forward album and unmounted photographs to those ladies or gentlemen who will undertake to mount same for us. In such a case the album will be forwarded to such hospital as the lady or gentleman mounting same may designate.

CITY OF LONDON UNION HOSPITAL (F. W. Crane, Superintendent Registrar): "I am directed by the Guardians of the City of London Union to acknowledge the receipt of your letter, dated the 3rd inst., forwarding a number of photographs for the walls of the infirmary, and to express their thanks for the same."

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W. (W. Thornton Sharp, Secretary): "I beg to thank you on behalf of the Committee for your handsome present of cards and album, which will be highly appreciated by our in-patients."

WELLS COTTAGE HOSPITAL (R. Isgar, Hon. Secretary): "I beg to thank you on behalf of my Committee for the parcel of photographs so kindly forwarded by the Editor of the AMATEUR PHOTOGRAPHER for the use of the patients of the hospital, who will, I am sure, appreciate the kind present."

THE INFIRMARY, Peterborough (A. C. Taylor, Hon. Secretary): "Many thanks for your kindness, and for the photographs for the patients here, and I am sure they will be delighted in looking over them"

THE MIDDLESEX HOSPITAL, W.: "The Secretary presents his compliments to the editor of the AMATEUR PHOTOGRAPHER, and begs leave to thank him for his present of photographs for the decoration of the wards, etc., of this hospital."

ROYAL SURREY COUNTY HOSPITAL, Guildford (T. S. Taunton, Hon. Secretary): "I beg to acknowledge the receipt this day of a parcel containing photographs, many most interesting and well executed. Our little patients, I am sure, will value them much. I beg to tender you the best thanks of our Committee of Management for so kindly thinking of the suffering ones, and sending such a handsome present."

COTTAGE HOMES (Parish of St. Leonard, Shoreditch) Hornchurch, Essex (James Cowley, Superintendent): "I thank you very much on behalf of the Committee and children for the very

beautiful views you have sent; the exhibition of such pictures can scarcely fail to have a refining influence upon the children."

KING'S COLLEGE HOSPITAL, Lincoln's Inn Fields (N. Bromley (Rev.), Warden): "On behalf of the Committee of Management I desire to express their thanks to you for your kind gift of photographs received at the Hospital."

BEXLEY COTTAGE HOSPITAL (H. G. Bristow, Hon. Sec.): "I am directed by the Committee of the Bexley Cottage Hospital to convey to you their thanks for the various photos received yesterday, which will prove of great interest to our patients from time to time."

KENSINGTON AND CHELSEA DISTRICT SCHOOL, Banstead, Epsom (Frederick Harston, Superintendent): "I am very much obliged for the photographs which you kindly sent; they are very acceptable indeed, and will give much pleasure to the children."

ST. MARY'S HOSPITAL, Paddington (Thomas Ryan, Secretary): "I beg to acknowledge the receipt of your letter of the 12th inst., and have to express my thanks to you for the very useful present of photographs which you have been good enough to send for the use of the children."

OXFORD EYE HOSPITAL (the Secretary): "Very many thanks for your kindness. The book will be very much appreciated. It is very good of you to think of us."

THE VOLKS HOSPITAL, Pretoria, Transvaal (M. G. Stumens, Secretary): "I am instructed by the Commission of the Volks Hospital to acknowledge with thanks the receipt of the photographs received in good order."

BETHNAL GREEN SCHOOLS, Leytonstone (D. Papworth, Superintendent): "Please accept my thanks for kind present of photos and album for little ones here, of which there are 550."

FOREST GATE SCHOOL, Stratford, Essex (Mr. C. Duncan, Superintendent): "Please accept the sincere thanks of the children and also my own for the beautiful album and the photos. I propose placing them in our infirmaries, and I am quite sure they will amuse my little folks."

THE COTTAGE HOSPITAL, Warminster: "The Matron begs to acknowledge the safe arrival of the photographic album, with many thanks from the patients, by whom it is thoroughly appreciated."

WATERFORD HOSPITAL, Ireland (the Secretary): "Many thanks for the hospital album, duly to hand. From a hasty inspection of it, I venture to say that it cannot fail to be a decided recreation for the poor sufferers in the Hospital."

SEA-SHELL MISSION FOR SICK CHILDREN, Liverpool (Mr. E. Bally, Hon. Sec.): "Many thanks for the album duly received. It will give much pleasure, I am sure, to the sick children."

MR. JOHN DISHMAN (Government Printer), Perak, Straits Settlement, acknowledges the receipt of photographs sent at his request for hospitals and other purposes. He is exceedingly charmed with them, and says that they will afford much pleasure to the natives.

"I CALLED on Mrs. Snap to-day, and found her bathing the baby in the wash-tub." "Haven't they a bath-room?" "Yes, but her husband is an amateur photographer."

MESSRS. C. R. BONNE AND Co., of 41, Eastcheap, E.C., have sent us their guide to those wishing to take out a "Patent," or to protect a "Trade Mark." The little pamphlet, which will be sent free on receipt of stamp, gives full particulars as to fees, etc.

CORRECTION.—Mr. C. E. F. Nash writes, there is numerical error, page 451, which as it is copied again on next page, seems worth correcting. The molecular weight of Ag. No. should be 169, not as stated 179.9. A paper for beginners cannot be too free from errors of any kind.

MR. W. E. HENRY, of Alvaston, Derby, sends us his prices for photographic printing in platinotype, bromide and silver. His charges are moderate, and his system of "order sheet" most admirable, showing much care and thought. Mr. Henry will also develop exposed negatives; in fact, do all that is necessary, after receiving the plate, to turn out a finished photograph.



## Science Notes.

STRANGE to say, America has no "national flower." The *Photographic Times* is endeavouring to remedy this deficiency by presenting its readers with admirable reproductions of negatives of selected plants of the United States. The first specimen is the "Tulip Tree," which is thought to have a "strong claim as a candidate for the national flower, there being but a single species of the genus, a single flower and leaf characteristic and showy. Moreover the tree is one of the noblest in the United States; straight as an arrow, and sometimes a hundred and forty feet high." But surely such a plant lacks the universality and accessibility which ought to characterise a "national" flower, and which are the characteristics of the English rose, the Scottish thistle, and the Irish shamrock.

Colonel Waterhouse finds that guaiacol (or methycatechol) acts fairly well as developer. Its price is only 1s. 6d. per ounce. It is a colourless, oily liquid, and thirty minims of it stirred into two ounces of caustic soda solution (one part solution used with Thomas' hydroquinone developer, diluted with three of water) developed well but slowly.

The addition of saccharin (the new sweetening agent) to the toning bath, in the same proportion as the gold used, is said to improve the tone of the prints and to promote their permanency.

The Eastman "rollable" celluloid film is a great success. The American factory is running day and night continuously, except Sundays, but is unable to keep up with the demand. The Celluloid Company, of Newark, New Jersey, has brought an action against the Eastman Company for infringement of patents on alleged solvents of the gun-cotton used in the manufacture of celluloid.

Messrs. Hurter and Driffield, of Liverpool, have invented a new and exceedingly clever instrument for testing the rapidity of dry plates. An account appears in the "Journal of the Society of Chemical Industry," for May, 1890. Testing Anthony's climax celluloid films (which have recently been placed on the English market) they find their speed to be 314 times that of a wet collodion plate! This accords with our own experience that emulsion on celluloid is more rapid than the same emulsion upon glass. We believe the reason to be that the light is more thoroughly absorbed by the emulsion on the celluloid, owing to its greater opacity and "matt" surface.

We hear much of the Photographic Convention, and many people believe that British photographers "flock in their thousands" to its meetings. It would be interesting if the Secretary would kindly give us the exact number of members who have paid their subscriptions during each of the five years for which this body has been in existence. We believe that the average would work out at about 100! As we have now 200 photographic societies in the British Isles, this gives just half a photographer apiece! These societies include about 15,000 members, and there are probably as many more individuals "unattached." Viewed in this light, the meetings of the Convention remind us somewhat of those held by the "Three Tailors of Tooley Street."

The permitting to be read, at the recent Chester Convention, of a paper which was simply a savage, personal attack upon Dr. Emerson, struck us as being in extremely bad taste. No such paper would be accepted by the British Association; or, indeed, by any of our chartered scientific societies.

It seems probable that we shall soon see an end of the abominations called lens-caps. The various "time and instantaneous" shutters are taking their place. The cheap and simple shutter sold by Place, of Birmingham, has long been a favourite with us; and for faster work we have lately found Underwood's shutter very good. But a shutter which will give with certainty, an exposure of the three-hundredth part of a second, together with good "efficiency," is still a desideratum. Not that such a shutter is likely to be often wanted; but, like the Yankee's revolver, "when we do want it, we want it *bad*!" It is amusing to find that shutters are still sometimes employed to take waterfalls in dark glens, and similar subjects; such subjects want from ten to thirty seconds exposure, the results being full details in the trees and rocks, while the water also prints correctly (being thin from over-exposure), instead of showing as patches of white.

The members of the Birmingham Photographic Society (County Survey Section) have been balloting for churches. Each member is bound to secure a set of negatives of the sacred edifice which falls to his happy lot.

M. Schlessing recently brought before the Académie des Sciences,

at Paris, a number of photographs clearly showing the excellent results obtained by treating the potato disease with a solution of sulphate of copper.

The summer annual of photography—*Anthony's International Annual*—has just arrived in England, and proves to be the finest volume of this nature ever issued by any publisher. It contains twenty-two full-page illustrations, and contributions from nearly 200 workers. The price in America has been raised to three shillings, but in England it remains at two shillings as before.

F. G. S.

## Holiday Resorts and Photographic Haunts.

### CLEVEDON, SOMERSET.

By T. BAKER.

CLEVEDON, Somerset, is not only a healthful holiday-resort, but possesses many unique features as a photographic haunt.

*It is easy to get at.*—Being on the Bristol Channel, about 15 miles from Bristol, it is conveniently situated for Bath, Cheltenham, Gloucester, and Birmingham, and even any one leaving London at 11.45 can reach Clevedon by 3.38.

*It is not overdone by the crowd.*—The inhabitants of Clevedon, many of them, have long tried to make their little town a health-resort, rather than cater extensively for the million, and the result is, it may be considered the *beau-ideal* of a photographer's haunt.

*Why a Photographer's Haunt.*—Because, in consequence of the situation and formation of the soil, the roads dry quickly. The hills are numerous, but none of them very high; the streets have gardens and copses among them, all adding to their picturesque beauty, and even the beach-promenade has a green strip along one side, on which there is an ornamental fountain, a nicely-designed band-stand, a "thatched house," and a resort locally known as Spectacle Row, not to speak of Little Harp Bay, the children's resort, each of which places are worthy of a good picture.

*The photographic features are not only local.*—Here, at St. Andrew's Church, is buried the younger Hallam by this broad-water of the west, and whose pure mind and rare genius wrung from the poet's heart—

"Break, break, break  
On thy cold grey stones, O Sea;  
And I would that my tongue could utter  
The thoughts that arise in me."

Near this spot also is buried Emma Jane Worboise, the noted writer, and we must not forget to suggest not far away is that little cottage where the poet Coleridge commenced his married life, and in this very cottage were written the lines—

"O the one life within us and abroad  
That meets all motion and becomes its soul in light—  
A light in sound, a sound like power;  
Rhythm in all thought, and joyance everywhere."

*Other interesting points for photographers.*—Close to Coleridge Cottage are some remarkably-designed schools, which make a fine cabinet picture, and if you wish for a regular round with a number of slides, Dial Hill is a good point to start from, passing through Pine Wood and Strawberry Hill, where some fine woodland scenery can be taken, and from there to East Clevedon, where, after a general view, Swiss Vale, also Abraham's Hill make a fine trio of pictures.

Going from thence to Walton Castle, erected in the reign of Queen Elizabeth, and near which is a fine ruin called the Look Out, the picture-finder may return *via* Ladye Bay and Lovers' Walk, where, of course, he will not take any snap shots at interested lovers. He will soon be once more in the town, and will find a photographic dark-room at the baths, where plates can be developed and information asked for.

*Away from the town, but within easy distance, there are many photographic features.*—A coach starts daily for Portishead, passing through Walton in Gordano, with a fine tree right in the midst of the village; Weston in Gordano, with its remarkable church, near Clapton, where the proprietor of the Nurseries has some fine fernhouses, and will give information as to where Nightingale Valley, etc., are. And when at Portishead the training-ship *Formidable*, and views of the town from the hill; also the woods near the Royal Hotel; the house, with pond in front, at one end of the village, etc., should not be forgotten. Another



day tour may be taken to Cadbury Camp and Yatton, where the church tower is very singular, and Claverham, Cleve, and Congesbury all furnish material for splendid pictures.

Nearer Clevedon is Clevedon Court, the gardens of which are shown any Thursday afternoon, but taking any photographs of this mansion entails asking permission of the courteous owner, Sir Edmund Elton, who is well known as the designer of the famous Elton ware, a piece of which should be secured before leaving the town, as all possessors have something which no one else has, something which has been personally prepared, and something of which there are no defective pieces sent out. Does not the idea suggest some hints which might be useful to the amateur photographer?

*What a Londoner thinks of Clevedon.*—It is always interesting to have the gift of seeing ourselves as others see us, and some years ago a "Londoner" wrote to one of the Bristol papers words which shall conclude my remarks:—"So this is Clevedon. Last week I was at Brighton. All my life I have heard people speak rapturously of Brighton; of Clevedon I had scarcely heard the name. There I was impatient until the railway whirled me from it. Here I am inclined to linger, almost to dwell. Looking down from this eminence upon the little town, it has a foreign aspect of the fairest kind. I see no stiff parades, no three-sided squares, no unfinished crescents. The houses, some large and handsome, some small and comfortable, are detached and irregular, like the ground on which they are built. The roads, even among the principal thoroughfares, preserve a strikingly countrified appearance, and wind gracefully around the hills, across which and through the shadowy copse wood must be many a pleasant summer stroll. . . . Turn where you will here, the eye reposes upon a landscape of living beauty. I gaze alternately on one side and on the other, and know not which to prefer, so exquisitely is either scene appointed. That sweep of plain ranging onwards to the left in rich luxuriance of tree and pasturage, so evenly distributed and perfectly blended, that, whether in its entirety it be wood or meadow land, you cannot tell—its length lost twenty miles away against the hazy summer sky, its breadth girded by a noble range of hills so distant that the spreading woods upon its sides seem only to be clumps, and dotted here and there like flocks of sheep; or towards the right the sea view, with the water running parallel with the plain, and like the plain, too, in its extremity, bounded by the horizon, and in its breadth by the blue mountains and beautiful coast of South Wales," etc., etc.

## Our Contemporaries at Home and Abroad.

*Anthony's Photographic Bulletin*, speaking of "Pseudomorphs," says, "There is a constantly increasing number of amateur photographers who seem incapable, or too lazy, to develop the plates that they expose in the camera. All they care to do is to take some automatic machine in the form of a camera, hold it up in front of a view and trip an instantaneous shutter. These exposures, plates or films, are handed over to some other person to develop, fix and make ready for the printer; or the same individual may even make the prints and mount them. All that is done by these so-called amateur photographers is to select the view and expose the plate; and it appears to us that they are not entitled to be considered as amateurs any more than the man that takes the panorama should be called an artist, or the quarryman a sculptor. It is true that a certain amount of artistic taste is necessary in the selection of the view, but the production of a good negative after the exposure is made is a matter of training, skill, and patience, that only comes to those who love the art of photography. These pseudo-amateurs are rushing into our societies, and receiving the same rights and privileges that belong only to the true amateur, the lover of our art. Many of them are utterly incapable of producing a decent negative, and are no more amateur photographers than the daubing school girl who colours a bromide enlargement and thinks she is an artist." Articles: "Transparencies," "Celloidin Paper," "Some Fallacies about Residues," "Photography in Colours," "Photography, its History and Applications," "The Salting and Exciting of Drawing, and other Commercial Papers," etc.

The *American Amateur Photographer* contains, under the head

of "Woman's Work," an article by Catherine Weed Barnes, in which she says, "It cannot be too strongly impressed upon them that systematised work is required to accomplish the best results in every form of human endeavour. As in the kindred arts of music, painting, and sculpture, those only take high rank who are willing to sacrifice time and trouble to gain the desired result. In that treasury of the classics (the Latin language) one sentence comes down to us which should be graven deeply on every woman's mind until it becomes, unconsciously, a part of her life. "*Labor omnia vincit.*" She can work, she has inherent in her organisation an almost infinite power of faithful labour, but she should learn to work understandingly and systematically, not allowing anything to take the place of well-ordered management. Inspiration is too often a "will-o'-the-wisp" to many camerists, but Pegasus should be obliged sometimes to do service in a light harness. Study, read, think, and practice carefully, remembering that great as is the inspiration of genius, still greater is the spirit of the grand motto, "*Labor omnia vincit.*" Articles: "A New Magazine Hand-Camera," "Lantern Slides by the Wet Collodion Process," "Index Rerum Photographic," etc.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. The PHOTOGRAPHIC SOCIETIES' REPORTER was established to report the transactions of Societies, and the Editor will be glad to receive reports for insertion as early as possible after the meetings have been held, and at the latest before the 24th of each month.

**BIRMINGHAM PHOT. SOC.**—An ordinary meeting was held at St. Edmund's College, June 26th, Mr. B. Karleese in the chair. Mr. G. A. Thomson gave an epitome of the excursion to Coventry, and gave notice of the whole day's excursion to Wilmcote and Stratford on July 19th. Mr. W. J. Harrison, F.G.S., then gave his paper on "Orthochromatic Photography," which was illustrated with a large number of negatives, prints, and lantern slides taken by the lecturer, showing the advantages of orthochromatic plates over the ordinary. Prints were also exhibited of negatives taken from oil paintings with screens used of different intensity. Mr. Harrison exhibited a number of prints, negatives, etc., showing exquisite work on the Vogel-Obernetter orthochromatic plates; these were the work of Mr. Gotz, the English agent for these plates; also some capital landscapes, flower subjects, etc., lent by Mr. B. J. Edwards, and taken on his isochromatic plates.

**BELFAST CAMERA CLUB.**—The fortnightly meeting of this club took place on Saturday, 21st ult., the rendezvous being the Belfast Water Works, Woodbourne. Although the day was threatening eleven cameras turned out. The glen and waterfalls occupied the attention of the members for two hours, and notwithstanding the rain, which somewhat damped the ardour of the enthusiastic picture-hunters, numerous views were obtained of the large fall (specially turned on for the occasion) and of the river and glen.

**HACKNEY PHOT. SOC.**—The ordinary meeting was held on Thursday, the 26th ult., Mr. W. L. Barker presiding. Mr. Dean showed a negative having traces of fog very apparent, but explained that he poured solution of caustic over it in developer. The Secretary said that would explain the foggy. Mr. Grant showed some prints taken off negatives in a guinea hand-camera of Griffiths, but had found in dark backs light was let in in two out of the three. A fine platinotype print by Mr. Weeson was shown. The Secretary handed round some Wormald's masks.

**HARLESDEN AND WILLESDEN PHOT. SOC.**—At the first ordinary meeting of the society held at the Vestry Hall, Tubbs Road, Harlesden, on the 25th ult., the President, Mr. J. Naylor, delivered his inaugural address, and also read a paper on the "Past, Present, and Future of Photography." The lecturer dealt with the subject in a masterly and exhaustive manner, and was on its conclusion accorded a most unanimous vote of thanks. The next meeting of the society will be at Mr. Reed's studio, The Mall, Harlesden, at 8.30 p.m., on July 8th, when a paper will be read by Mr. Clapton, on the "Theory of the Swing Back." Several interesting questions are down for discussion on the same evening. The Hon. Secretary, Mr. Isaac Cohen, 26, Wendover Road, Harlesden, will be pleased to receive names and afford information to intending members. On Saturday,



July 12th, the society will meet for another photographic excursion.

**HOLBORN CAMERA CLUB.**—On Friday, June 27th, about twenty-five members assembled at headquarters to view a series of lantern slides, which had been kindly lent by the proprietors of the *AMATEUR PHOTOGRAPHER*, after which slides by Mrs. Smith and Messrs. Plumbidge and Bell were shown. To-day Mr. Jones will lecture on the correct development of negatives and their subsequent treatment.

**OXFORD UNIVERSITY PHOT. SOC.**—The last meeting of the summer term was held on the 16th ult. Mr. Philipps gave a lecture on and a practical demonstration of "Autotype Printing." He exhibited a large number of prints in different colours which had been kindly lent by the Autotype Company for the occasion. The lecturer laid great stress on the artistic merits of the process, its simplicity, and cheapness. An interesting discussion followed in which many members took part. The following officers were elected for next term: President, J. Anwyl Theobald, Worcester College; Treasurer, J. Walker, M.A., Christ Church; Secretary, H. M. Philipps; Committee, J. W. R. Brocklebank, Christ Church, H. S. Moore, Queen's.

**SHEFFIELD CAMERA CLUB.**—The first excursion this season took place on Wednesday, the 25th June, to Lincoln. The cathedral was the centre of attraction, the fine interior receiving a considerable amount of attention. The Exchequer Gate, Castle, Jews' House, Newport Gate, etc., received also due attention. In all, about seventy plates were exposed. Sheffield was reached about 8.30 p.m.

**SOUTHEAST AM. PHOT. SOC.**—On Wednesday, June 25th, there was a full meeting of members to meet Captain Lamb, the President of the society, on the occasion of his giving a paper on Jersey. The lecturer began by giving a short history of the island, and then proceeded to pass through the lantern views of the principal places of interest, each being accompanied by a

short description. Captain Lamb soon after his arrival in Jersey, about the beginning of the year, succeeded in forming the Jersey Amateur Photographic Society, of which he is also President. He will be glad to give any aid in his power to amateur photographers visiting that island. His address is Fort Regent, St. Helier's. Lieut. Cobb, R.N., thanked the lecturer for his interesting paper, and expressed the pleasure the members felt at having him amongst them once more.

**TUNBRIDGE WELLS AM. PHOT. ASSO.**—The members of the above association had an excursion to Bayham Abbey, one of the seats of the Marquis of Camden, on the 28th ult., permission having been kindly given by Captain Philip Green, the present resident. The old ivy-mantled gateway, with its castellated towers on either side, as it is approached from the stream across Murray Bridge is splendid. It was occupied by a society of white canons called Præmonstratensians in the reign of Richard I. Sir Richard de Thorneham at this time bestowed on them all his lands. The Priory appears to have been built by Ralph de Dene, and largely endowed by him and his nephew, but especially by Ela de Sackville, of Buckhurst, the daughter and co-heir of the said Ralph. The nave has its once richly-carved pillars, and the north transept and choir has its formerly-elegant columns, pointed arch and grotesques. The remains of the chapter-house are three light, elegant arches, and part of the walls. Among the most conspicuous parts of the Abbey remaining are a few arches of the refectory and a portion of the dormitories, with a fractured stair that led to them. In various parts of the ruin are flat stones, thought to be gravestones. The weather being all that could be desired, with the exception of a little too much wind, a great many plates were exposed, and after the best points were exhausted two groups were taken in the ruins by Mr. Morgan and the Hon. Secretary, when a start was made for the lake and the waterfall, where more exposures were made, finishing up with the mansion.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

3947. **Perranporth and New Quay, North Cornwall.**—I purpose spending a holiday at one of these places. Should be glad of any information as to pretty spots, etc., in the neighbourhood for photographing.—B.

3948. **Ifracombe.**—What are the best bits to take within a radius of 15 or 20 miles. Any information will be thankfully received by **QUARTER-PLATE**.

3949. **Books.**—Will someone kindly inform me of a good, sound book on photography, wherein the art is fully explained; and also, where such a book is to be obtained, and oblige.—P. W. S. H.

3950. **Cycling, West of England.**—I am going on a photographic cycling tour through the West of England at the end of July or the beginning of August, and shall be pleased to meet with a gentleman bound for the same district (address with Editor).—**PHOTO-ROVER**.

3951. **South West of England.**—I propose spending three or four weeks in July and August in South West of England, commencing at Shrewsbury and working south through the most interesting places to Cornwall, and should be grateful for any hints as to what is most interesting and picturesque in that part of England from a photographer's point of view. I shall take with me a Rouch's quarter-plate detective camera, fitted with roll holder, and also with their changing arrangement for plates, so that I shall have both plates and films. Which plates would you recommend to give bright, clear negatives with instantaneous exposure? I have been using Ilford ordinary, and find them satisfactory with bright sunlight, but in ordinary light they are too slow. What particular mode of carrying is recommended the exposed plates? What cheap folding or portable lamp is the most efficient? The ordinary paper one is not all efficient. I fancy that something of the gig-lamp order, with a candle, would be best.—G. MURRAY WILSON.

3952. **Boulogne.**—Can anyone tell me whether plates, chemicals, etc. are passed free through the Customs at Boulogne, and if not, what charges are made? Also what good pictures can be obtained there, and in the neighbourhood?—E. S. T.

3953. **Pigeon Photographing.**—Will any reader kindly inform me as to the best way of photographing a pigeon instantaneously, using Lancaster's instantograph, and what are the best plates for same.—**JOHN MILLS**.

3954. **No. 3. Kodak.**—Can anyone afford really reliable information as to the efficiency of the No. 3 Kodak? Is it at least equal to any hand camera made in the results it produces? Is the new film free from defects, and will it keep well? I cannot develop till two or three months after exposure. Is this safe? I have found it perfectly safe with plates, but stripping film exposed in the No. 1 Kodak spoilt with keeping, and was frequently full of defects.—M. A.

3955. **Cornwall.**—Particulars of any "bits" of interest in south portion of this county, at or near St. Ives, New Quay, and in the neighbourhood will be thankfully received by **BRET-LAW**.

3956. **Short Focus Lens.**—Would anyone kindly tell me which is about the best short focus lens for hand-camera. Also could I do better than Abraham's Ideal or Rouch's Eureka, and which is the best of the two?—**IN DOUBT**

3957. **Saturated Solution of Hypo.**—Is a saturated solution of hypo safe for negatives and prints? If a saturated solution of hypo is unsafe, what proportion of water should be added (a) for negatives, (b) for prints? I have added ammonia to hypo solution to make it alkaline, and so prevent precipitation of sulphur. Has it any injurious effect on negatives or prints?—**CAMERA**.

3958. **Under-Exposed Plate.**—Does an under-exposed negative require longer or shorter develop-

ment than correctly exposed after details begin to appear?—**CAMERA**.

3959. **Toning Bath.**—How often can a toning bath be used for prints? Is it spoiled by the addition of a small quantity of hot water?—**CAMERA**.

3960. **Flash Light.**—How many grains of magnesium powder should I use to get a good flash-light picture?—**H. O. S.**

3961. **Changing Bag.**—Could any reader kindly inform me where a cheap changing bag (not to go over the head) can be obtained, or how one could be made, quarter-plate size?—**H. C. S.**

3962. **Clouds.**—I have lately started in the above branch, but as yet with small success. I cannot get enough contrast to print from. I should be glad of any hints as to exposure and development. I use 10 per cent. solutions, carbonate potash, and soda, and dry pyro and Ilford plates.—**ANTIQUE**.

3963. **Rochester and Chatham.**—I intend visiting the above places in a few weeks' time. To whom should I apply for permission to photograph the castle and cathedral, also, if possible, the dock-yard? Should be thankful for any hints to above. Also should like to know a cheap place to stop at. A letter would oblige.—**ANTIQUE**.

3964. **Watkins' Exposure Meter.**—Will some brother amateur who has tried this tell me if it is to be recommended or not, and how it is used? I wrote for the particulars to the maker, and received a copy of an elaborate paper read before the Hereford Photographic Society, highly commending it, but not giving any explanation of its practical working that is intelligible without the demonstrations that attended the reading of the paper. Is it easily worked and a practical instrument for an amateur?—**ASHTON**.

3965. **Llandudno, Abergale, Rhyl, and Colwyn Bay.**—Can any reader tell which is the best of these places from a photographic point of view?—**G. WADE**.

3966. **Stereoscopic Photography.**—Where can I obtain a full description of the stereoscopic process and apparatus?—**H. F.**

3967. **Red Intensifier.**—I once saw an intensifier for bromide plates, which acted by turning the brown silver deposit of a scarlet colour. I have searched everywhere for it without success. Can any of your correspondents assist me with any particulars of same?—**FRED DAVIS**.

3968. **Fabric for Dark Tent.**—Please recommend opaque fabric suitable for small dark tent for holiday work, and say price, and where to be had?—**PEKEN**.

3969. **Trap for Sink.**—Would the flexible trap sold by the Photographic Artists' Company Co-operative Association be suitable for sink for quarter-plate portable dark tent?—**PEKEN**.

3970. **Toning Bath.**—In toning bath a black precipitate always falls. Is the bath wasted? If so, how can I rectify this?—**PEKEN**.

3971. **Quick-Acting Fixed Focus Lens.**—Can any-



one kindly give me the address of any firm who can supply quick-acting fixed focus lens, unmounted, and cost, suitable for home-made quarter-plate hand-camera, with a shutter working up to  $\frac{1}{300}$  sec? I see in letter to Editor, "The Kodak Lens," that such are to be obtained, but no addresses are given. No doubt the information would be useful to others as well.—J. BROWNLOW.

3972. **Spectacle Lenses** are numbered according to their strength or powers. Can you oblige me with these numbers and this power, or refer me to any book treating on them?—J. F. M.

### QUERIES UNANSWERED.

April 4th.—Nos. 3664, 3674, 3677.

18th.—No. 3718.

25th.—Nos. 3727, 3742, 3744, 3747.

May 2nd.—No. 3758.

16th.—No. 3820.

23rd.—Nos. 3839, 3843.

June 6th.—Nos. 3883, 3884.

13th.—Nos. 3885, 3886, 3894, 3896, 3901, 3910, 3911.

20th.—Nos. 3914, 3917, 3918, 3922, 3924, 3927, 3928, 3929.

27th.—Nos. 3933, 3935, 3939, 3940, 3943, 3946.

### ANSWERS.

3661. **Intensifier**.—It is so long since this query appeared, that it is to be hoped "A Beginner" has got himself out of his difficulty, but as "Radiation" does not seem to have replied as requested, I should be glad to say something to help a "Beginner." It is, however, impossible without analysing his solutions to say what has gone wrong: either the materials used were impure, or wrong chemical has been supplied. I would advise "A Beginner" to try again, making up his solutions himself, as pharmaceutical chemists are not altogether to be trusted with photographic formulae. I would purchase materials direct from a photographic chemist (Fallowfield will, doubtless, send them, if "Beginner" lives where one is not accessible, or Chapman, of Manchester), and make solutions according to formula, using, however, for economy's sake, one third quantities named, thus: one ounce of sulphocyanide ammonium instead of three.—W. A. WATTS.

3822. **Luggage Carrier**.—Apply at Goy's, Leaden-hall Street. Cost, I think, is 12s.—T. S. MAYNE.

3824. **Toning**.—If your bottles and measures are perfectly clean, such should not be the case. Prepare a fresh sulphocyanide solution, pour 3 ozs. in clean glass measure, add 1 gr. of gold (that is the usual solution of 1 dr. containing 1 gr. gold), stir with glass rod; you should have no sediment.—T. S. MAYNE.

3826. **Enlarging**.—Write Morgan and Kidd, enclose stamp, ask for their printed sheet of instructions for enlarging their paper.—T. S. MAYNE.

3826. **Enlarging**.—"Arline" should find no difficulty in enlarging from quarter-plate up to 12 by 10, with limelight lantern, provided he has condenser large enough to cover quarter-plate; this, however, requires condenser about  $\frac{5}{8}$  ins. diameter, which are expensive. Providing "Arline" has suitable lantern the directions given with the various bromide papers (Eastman's, Fry's, Ilford, etc.), will probably be sufficient. There is a good chapter on the subject in Chapman Jones' "Photography." If "Arline" has not the lantern, it will probably be cheaper to use daylight, and Lancaster's Multum in Parvo, or Fallowfield's, Eastman's, or Optimum enlarging apparatus.—W. A. WATTS.

3827. **Dark-Room**.—See Cassell's penny weekly, "Work," No. 50, March 1st. Sketch measurements, pages 796 and 798.—T. S. MAYNE.

3828. **Penarth**.—Unless your busmen take you there, you will find many other districts in South Wales better suited.—T. S. MAYNE.

3829. **Boxhill**.—Ample scope within a circle of 2 or 3 miles.—T. S. MAYNE.

3840. **Herne Hill**.—Yes; also dark-room.—T. S. MAYNE.

3834. **Lens**.—Write Lancaster, the makers.—T. S. MAYNE.

3857. **Solar Eclipse**.—You will only get an image like a very small pea with a telescope attached to your camera and no lens. You will get a fair-sized result, about size of a shilling.—T. S. MAYNE.

3858. **Lancashire and Cheshire**.—Call at 3, Lord Street, Liverpool, Amateur Club Rooms. The River is best for your hand-camera; do not expect too much from a hand-camera and fixed focus. For buildings and country scenes, lanes, etc., with trees, you must have tripod.—T. S. MAYNE.

3860. **Lantern from Window**.—Perkins have a very fair lantern at 30s.; any dealer will get it for you. Presuming you desire to show the pictures to passing crowd, get a frame made with sheet stretched thereon, to take place of both sashes which you remove. If your room is of small dimensions, you must have lenses of lantern of proper focus.—T. S. MAYNE.

3862. **Eclipse v. Facile**.—Former is used with usual double backs, and is smaller than Facile, which has a changing arrangement, holds twelve plates; it is a matter of choice which system you prefer.—T. S. MAYNE.

3865. **Developing Tent**.—Perkins' Eclipse at 25s. is portable and perfect. You can easily resell it when you return home.—T. S. MAYNE.

3878. **Eclipse of Sun**.—See 3857. Quick shutter; any good plate will suit.—T. S. MAYNE.

3890. **Sulpho-Pyrogallol**.—I cannot at this moment turn up the published formula for Berkeley's sulpho-pyrogallol, it was in the *Photographic News Almanac* several years ago, but I have made it several times; to the best of my recollection it is: dissolve 4 ozs. sulphite of soda in hot water to make up 9 ozs.; when cold test with litmus paper, and if alkaline, make faintly acid with citric acid, and dissolve in it 1 oz. pyrogallol acid. It is best, however, to acidify either with sulphurous acid or bisulphite of soda, as if the solution is very alkaline and requires more than a few grains citric acid, the citrate of soda formed is a powerful restrainer.—W. A. WATTS.

3895. **Fallowfield's Hand-Camera**.—If you have the R.R. lens use  $f/8$  and quicken exposure. But for hand camera work red label is none too quick, and you may then be able to get sufficient exposure with  $f/11$ , which is what Fallowfield recommends. The size of the stop does not depend upon the distance, but upon the rapidity of the motion, the more rapid use larger stop and quicker exposure, whilst the smaller stop you use the quicker exposure you must give, and more rapid plate needed.—W. A. WATTS.

3899. **Platinotype Cold Bath Process**.—By platinum bichloride is usually meant platinum chloride, which is really the tetrachloride ( $PtCl_4$ ), but used to be called bichloride before the chemical equivalent of platinum was doubled. The true bichloride, however, is platinumous chloride ( $PtCl_2$ ), which cannot be used by itself, being insoluble. The so-called platinum bichloride is, therefore, platinum chloride or platinum tetrachloride, which will not tone, and the *platinum salts* are a compound of platinum chloride with potassium chloride, whose distinctive name is potassium chloroplatinite.—W. A. WATTS.

3909. **Ingletton and Settle**.—I believe "Waterloo" would find either Mr. Horner or Mr. Handby, of Settle, willing to oblige him, so far, at least, as changing plates is concerned, and I think (but am not sure) that there is a dark room at the Ashfield Hotel, Settle. If "Waterloo" has any difficulty I would advise him to apply to Dr. Marshall Watts, Science Master at Giggleswick Grammar School.—W. A. WATTS.

3912. **Church Interiors**.—Back your plate, expose for the shadows, use a developer well restrained (not weak), keep down the pyro, develop slowly.—G. WADE.

3912. **Church Interiors**.—The best plates for such an interior as St. Giles mentions are thickly coated ones. Such as Thomas' slow (18 W), or thickly coated extra rapid (25 W). The former would be better unless exposure is too long. They should likewise be backed to prevent halation with gamboge—or moistened carbon tissue.—W. A. WATTS.

3912. **Church Interiors**.—Get some of the Eastman celluloid films, they are very rapid, and will considerably shorten exposure and avoid halation. Choose a day when the sun is not shining, but light is otherwise good, and take the eastward-looking view in the afternoon, so as to reduce the light on the window as much as possible. Expose for about a quarter of an hour or twenty minutes. Use a rather small stop, about  $f/22$ . Developer should not be too strong in pyro (or hydroquinone) with a rather large amount of potash or ammonia, to avoid harsh contrasts. If you use glass plates, use Edwards' isochromatic or Thomas' thickly-coated, and back them, but this is not so satisfactory a way of avoiding halation as the films. Edwards' plates about the same rapidity as films, but Thomas' are very slow; will require about an hour.—W. H. H.

3913. **Photo-Micrography**.—I fear "Fogged" cannot dispense with a microscope objective. He might, however, use a cheap one by making allowance for difference of foci—and possibly make temporary mounting, so as to avoid expense of a microscope.—BRJW.

3919. **Surrey**.—Within easy distance are Beddington and Carshalton, which will yield many pretty bits; Tooting Common (I think you will require permission from the London County Council); the Thames at Putney; Richmond Park, Hampton Court Palace and Gardens, and Bushey Park, permission for which can be obtained from the Secretary, H. M. Office of Works, Whitehall, S.W. Should "Chappell" desire to go further afield he can easily reach the charming country about Dorking and Guildford by L. B. and S. C. or L. and S. W. Railways.—W. H. H.

3920. **Lenses**.—I do not know Taylor's lenses, but they are well spoken of, and querist ought to get a thoroughly good one for £3. Taylor's quarter-plate R.R. is priced £2 10s. Wray's at the same price I can strongly recommend. The  $\frac{4}{5}$  by  $\frac{3}{4}$  ought to cover a large enough circle to allow of use of rising front. To permit rise of 1 inch it must cover a 6 inch circle. The 5 by 4 does a little more than this, and if W. Bellous wishes to make sure he had better get this size.—W. A. WATTS.

3921. **Hypo**.—A small quantity of ammonia in the fixing bath will not interfere with it in any way. It is desirable the fixing bath should not be acid.

Hence for prints a few drops of ammonia are recommended. I do not think it affects the negative bleaching in the hypo, as all negatives lose a considerable part of their apparent density in fixing. W. Bellous should develop far enough to allow for this, usually with a moderately thin plate, till the picture is somewhat discernible on the back of the plate.—W. A. WATTS.

3923. **Rapidity of Eastman Film**.—The sensometer number of the new Eastman film is 30—about equal to Frys' 60-times plate.—W. H. H.

3925. **Burnishing**.—The burnisher told you the probable cause, which can only be repeated here. The remedy is, take more care in mounting.—G. WADE.

3926. **Plate Makers' Developers**.—The reason the bromide is invariably put into the ammonia in a two solution developer, is that ammonia unrestrained is apt to fog, and the more ammonia you use the more restrainer is necessary. Supposing you double your pyro, it is not necessary to double your bromide, because you are introducing no extra fogging power. But if you were to double your ammonia without a corresponding increase in restrainer, you would be liable to spoil the plate by fogging. The three separate solutions are no doubt better, as then you can precisely regulate restrainer according to judgment, but with a beginner it is safer to compel him to use his ammonia restrained.—W. A. WATTS.

3930. **Hydroquinone**.—You evidently did not carry development far enough. Would advise the use of the Ilford formula. Any amount of density then, and is a better formula.—EIKO.

3930. **Hydroquinone**.—The usual cause of lack of density is over-exposure and too brief development. So just reverse these details, and use a little more bromide, and you will get plenty of density?—FRED DAVIS.

3930. **Hydroquinone**.—Use for Ilford ordinary  $\frac{8}{16}$  by  $\frac{6}{16}$ . Hydroquinone No. 2, 2 ozs., water, 2 ozs.; No. 1,  $\frac{1}{4}$  oz. If more density is needed, add a few drops more of No. 1. Half quantity for quarter-plates. Good negatives will be made by using above (Ilford formula).—TOOTER-RE-TOO.

3931. **Books on Photography**.—Burton's "Modern Photography" is a useful book for a beginner; the price is 1s.—G. WADE.

3931. **Books on Photography**.—"Eureka" cannot do better than get Chapman's Jones' "Science and Practice of Photography," price 2s. 6d.—W. A. WATTS.

3931. **Books on Photography**.—"Photography," by W. Jerome Harrison, price 1s, or Burton's, same price; "Retouching," by J. Hubert, 1s; "Amateur Photographer's Library."—EIKO.

3931. **Books on Photography**.—One of the best books to give you an insight into photography is "Burton's Modern Photography," formerly the "A B C of Modern Photography," or Hepworth's "Photography for Amateurs," both 1s. each. As to the latter part of your query, I should say read "Retouching Made Easy." All these books can be obtained from Messrs. Fallowfield, or ordered at your local stationer's.—W. A. J. CROKE.

3932. **Vignetting**.—Sometimes a successful vignette may be obtained by carefully printing with cotton wool, graduated off. What you refer to is more often painted in by the hand of a good retoucher.—W. A. J. CROKE.

3932. **Vignetting**.—Use a background to photograph with, such as Lund's or Dyson's (cost about 2s. 6d. or so), then use a vignetting glass. Blocking out is difficult to do satisfactorily, and requires a very skilled hand.—EIKO.

3934. **Haddon Hall and Chatsworth**.—Permission must be had. You had better write there direct to the Secretary.—EIKO.

3934. **Haddon Hall and Chatsworth**.—No permission is required for Haddon Hall beyond a fee of 1s., payable at the wicket entrance to the Courtyard for the interiors, and for this fee you are lent a key of all doors, and one may roam through the beautiful old rooms and grounds, and expose plates when and where you will for the whole day if required. No fee is required, or permission either for views outside the courtyard wicket. You would not be allowed to take so much as a stick too long into Chatsworth Hall, but there are many delightful views of the house and grounds, etc., to be had from the park, and many of the Park itself. At the entrance to Chatsworth Park is Edensor Church, well worth a plate or two. Inside the Church is a tablet to the memory of the late Lord Frederick Cavendish, well worth "taking," and in the churchyard a simple cross denotes the resting-place of the remains of that illustrious, but unfortunate nobleman. Close by the church you may get the key, and an attendant will show you round, no fee is demanded, though it is usual to pay a trifle.—ONE WHO HAS BEEN.

3935. **Interiors**.—Use half the usual pyro, or even less, and keep developer generally weak.—EIKO.

3935. **Interiors, Development of Negative**.—Give full exposure. In developing keep down pyro, increase bromide, and add ammonia cautiously.—G. WADE.

3936. **Interiors, Development of Negative**.—It isn't the developer which needs modifying, it is the exposure. I give ten minutes to a quarter of an



hour's exposure to *f*/20 lens for a drawing room. Do you?—**FRED DAVIS.**

**3937. Gelatino-Chloride Paper.**—I do not know what price list "Gelatino-Chloride" has been consulting, but since Fallowfield, for instance, supplies 25 pieces Aristotype paper, 4 by 3, for 1s. 4d., or 12 Liesegang's 6 by 4 for 1s., the price does not seem too exorbitant to prevent a trial. If "Gelatino-Chloride" wants it cheaper, he will have to make it himself, and pretty full instructions are to be found in "Photographic Answers" for June.—**W. A. WATTS.**

**3938. Lynton and Lynmouth.**—Ilford plates in stock at Goodacre Brothers, Watersmeet Road, Lynmouth, other goods to order. Amateur at 4, Alford Terrace, will give information as to scenery, etc.—**BETA.**

**3941. Ipswich.**—Captain Cottle will find plenty of work for his camera in and around Ipswich. The town itself contains many old buildings of historical interest, such as Wolsey's Gate, Wolsey's House. The ancient house and some of the streets, and the Cornhill, with the Town Hall and Corn Exchange, are worth taking. The outskirts will furnish plenty of landscape studies, and Gainsborough's Lane, the Dock and River Orwell, with its yachts and barges, and the River Gipping, should not be neglected. I should be pleased to be of any help to Captain Cottle, if he will favour me with a call during his stay in Ipswich.—**HON. SEC. IPSWICH P.S.**

**3942. Enlarging Camera.**—Lancaster's Multum-in-Parvo enlarging camera is a good reliable article, and cheap. You can enlarge from quarter-plate to any size up to the full size for which the camera is intended, or reduce to any size you wish.—**G. WADE.**

**3944. Enamelling Prints.**—Possibly you have your prints too dry when applying to glass. Mounting generally removes gloss. Perhaps indiarubber mounting would overcome this.—**BRKO.**

**3944. Enamelling Prints.**—Do you place the taled glass and print both under water, press one on the other, and so remove them? If so, bubbles ought to be impossible. To make the prints keep their gloss when mounted you must buy some waterproof paper at a stationer's, paste it on while the print is on the glass, and then the subsequent mounting will not affect it.—**FRED DAVIS.**

**3945. Removal of Films.**—Hot water or hydrochloric acid, after strong solution of chrome alum.—**EIKO.**

**3945. Removal of Film from Negatives.**—If you mean, as your query implies, you want to get the film off a lot of old useless negatives, put them into hot water, when they will come off immediately.—**W. A. J. CROKE.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED. AM. PHOT.**

**REV. SAMUEL KENDON.**—Your lantern slide was received broken in 100 pieces; sorry we cannot therefore report upon it. You were certainly unwise to leave the negative for three-quarters of an hour before fixing.

**GEO. T. HARRIS.**—Many thanks for MS.

**HORACE C. R. HIDE.**—It is very kind of you to make the suggestion, but our arrangements are completed for this season.

**C. R. KIRKPATRICK.**—Your queries were inserted last week. Before you leave for South Africa we shall be pleased to see you any Monday afternoon or Thursday morning.

**THOS. IRELAND.**—In the first place, probably your negative is not absolutely sharp. You are not likely, with the lamp you have used, and having no condenser, to secure a good enlargement. Your light is not powerful. For enlarging from quarter-plate negative you require a 5 in. condenser. In Wall's "Dictionary," on page 62, a plan is shown for enlarging without a condenser. You might try it. No. 2 lens is the best.

**G. MURRAY WILSON.**—Read "A Tourist's Equipment, or How Must I be Prepared before Starting," July issue PHOTOGRAPHIC QUARTERLY. See AMATEUR PHOTOGRAPHER, vol. 8, page 7, "Bideford and Clovelly," page 7, "Round and about Ilfracombe," page 57, "On the South Devon Coast," page 185, "South Devon." AMATEUR PHOTOGRAPHER, vol. 10, page 55, "Tour in North Devon," page 57, "Penzance and Neighbourhood," page 181, "Tour in Devon and Cornwall," page 397, "Three Weeks in Devon and Somerset."

**D. FORBES (SOKIA).**—We have written to you respecting hand-camera, etc.

**G. H.**—It looks to us to have been hopelessly over-exposed.

**SPECS.**—(1) The prints have been mislaid, but your toning bath should only have had 40 grs. of borax instead of 80, and 2 grs. of gold and 20 ozs. of water, distilled if possible. (2) Any good brand of paper

should give good prints. (3) You may find it easier to work, but take great care in making up the bath.

**THE MACE.**—You should be able to secure instantaneous views with the lens named and a drop shutter. Work the lens at the largest aperture, probably *f*/8, and use a rapid plate. Will write you upon other points.

**H. HOLT.**—We have published many most interesting accounts of photographic tours in both South and North Devon, but thank you for the offer.

**E. V. PRICE (Malta).**—We will register particulars about slides, etc.

**E. HAVELOCK WALSH (Toronto).**—Many thanks for your capital letter. Will set to work about slides upon your lines, and let you have them in good time. Shall write you shortly.

**L. M.**—We will publish your letter, provided you send us your full name and address. The letter, of course, can appear under initials.

**R. H. THOMAS AND CO.**—Very sorry to be obliged to hold your letter this week, but will publish next week; kindly let us know by Monday morning's post how the matter stands. We are writing you.

**G. E. MALEHAM.**—Shall be pleased to know how the matter is being cleared up. Thanks for letter and cutting.

**ISLEY R. CODMAN.**—Thank you very much.

**JOSEPH CHAMBERLAIN.**—Will note corrections.

**B. T. F.**—For shutters No. 1, both the others are good. No. 3 is now made with a different plate, and is a very reliable shutter. No. 5 is reliable and very quick, and easily converted to a time shutter. We know nothing of 6, 7, or 8. The No. 1 is marked, but not for time exposures. We should advise you to have No. 1 or No. 5. B is one of the best plates in the market. You need work with no quicker plate.

**ALEX. KEIGHLEY.**—Will write you about date.

**JOHN E. AUSTIN.**—Application noted, will fix the date later on.

**A. R. BAINS (Burma).**—We can thoroughly recommend the camera, having used the same. The battery you name should give you all you require. It will be quite possible to have the four lenses made to fit one flange; shutter we should advise the first. The stand named is one of the best in the market. If you like we will inspect apparatus for you before it leaves the country. You can, of course, remit the makers or us direct. Your prints are very fair, hardly depth enough, but the selection of view is good. We hope you will enter for some of our competitions at an early date.

**CAMERA.**—You send us an addressed envelope, but not stamped, consequently the photographs are not returned. They suffer from most of the ills that photographs are heir to. No. 1 is over-developed, and, as a consequence, lacks brilliancy; the view is not improved by the gentleman posing for his portrait. No. 2 is a well-selected view of Clifton Suspension Bridge; the boat is too much in the foreground, and, as a consequence, slightly out of focus. The negative is evidently a thin one, and the print is much over-printed. Nos. 3, 4, and 5 have no merit. Study carefully such a book as "Experimental Photography" (Leaper), see that your lens covers the plate, give correct exposure, and develop your negative slowly, mix your toning bath carefully, and see that your fixing bath is clean and fresh; you will then do better work.

**A. WOOD.**—Rig up a drop-shutter, putting a light screen on the inside of lens.

**R. E. SHAWCROSS.**—You will find almost any number of letters upon hydroquinone as a developer in back number of the AMATEUR PHOTOGRAPHER. The hypo crystallising on back of plates will most assuredly spoil them, even though the film did not frill upon being washed. The entry forms have been sent you.

**ASHTON.**—Your unfixed print was almost black before it reached our hands. We should think you could get a decent print from the negative. Send it up to us.

**L. B. HARDCASTLE.**—The prints are charming. Send us up a sample, and we will with pleasure give the notices desired. If you will, should like to know who took the negatives?

**A. J. D.**—Am afraid we cannot advise you to take the camera C. It is not strongly made enough for travelling. We should advise you to have the A camera, with R.R. lens. The B is slightly smaller, and very compact; if perfectly finished it is a good instrument. You should certainly have a finder. For a hand-camera it is desirable to have the finder sunk in the top of the camera. The developing tent is very useful, and you should certainly provide yourself with one, or a changing bag. See AMATEUR PHOTOGRAPHER, May 30th.

**NOVICE.**—We should advise half-plate, or 7 by 5, and are sure that if you have either III. or V., preferably the latter, you will be well pleased. In lenses you cannot do better than you have determined. Get a W.A. from the same maker.

**W. MULLER (Mayence).**—Will send on the information.

**SIXTH FORM.**—The lens H is an admirable instrument, working at *f*/6, it will answer your purpose for portraiture, instantaneous, landscape, and in fact is a first-class all-round lens. You should have no difficulty in securing first-class results.

**R. M. YOUNG.**—They are all good plates. We

should place them 3, 4, 1, 5, 2, 6, 7 (of the latter we know little).

**J. K. M.**—You cannot remedy it, you have tilted the camera and hopelessly distorted the picture. Our advice would be to expose another plate. Take the view with an R.R. lens, and secure a good picture.

**J. C. DAWSON.**—The owner of dark rooms had better apply for our forms in the ordinary course. Cannot understand your other letter.

**HAROLD SENIER.**—Thank you; we will register the lady on the "black list."

**LENSE.**—None whatever, nor are there any disadvantages.

**J. F. M.**—Have inserted as a query.

**L. C. HOSKING.**—We should advise No. 2 as best fitted for all-round work.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

"Amateur Photographer."—AMATEUR PHOTOGRAPHER, vols. v., vi., vii., viii., ix., x., and xi. up to date, 189 numbers, all quite clean, and in good order; for 14s.—Robertson, 24, Millgate, Arbroath. AMATEUR PHOTOGRAPHER, Nos. 186—299, excellent condition; 10s.—Leicester, 161, Croxsted Road, West Dulwich.

176 numbers AMATEUR PHOTOGRAPHER, from January, 1887, up to date; 7s. 6d.—Walker, Scotchholme, Nottingham.

AMATEUR PHOTOGRAPHER, 163 numbers; 5s. 6d. the lot.—Frank, 63, Gayhurst Road, Dalston.

"Amateur Photographer," etc.—AMATEUR PHOTOGRAPHER, vols. viii., ix., x., xi.; "Illustrated Medical News," vols. i., ii., iii., unbound; what cash offers? No post-carriage.—Dr. Bill, 9, Brunswick Square, W.O.

**Apparatus.**—Camera case, waterproof, stiff leather bound, 8s. 6d.; solid leather, 14s. 6d.; good looks, straps; approval; 6 stamps.—1, Hermitage Mews, Stamford Hill, N.

Whole-plate mahogany retouching desk, new, with reflector, and half and quarter carriers; 10s. 10 in. burnisher, "The Useful," good condition, with Bunsen burner; 12s. 6d. Also half-plate canvas camera case, with shoulder strap; 5s.—A. Spiller, Hillside, Hampstead Hill Gardens, N.W. Buyer pays carriage.

Lancaster's quarter Instanto camera, lens, stand, one dish, waterproof case, changing box, carrying twelve plates; cost £3 12s. 6d., for £1 16s. Lancaster's International camera, half-plate rectigraph lens and simplicity shutter, two extra slides, two carriers, leather bound case, changing box, carrying twelve plates, and very superior stand (Mesgher's pattern); cost £10 15s., for £5 7s. 6d. Kodak (cost £5 5s.), unexposed spool, extra reel, and chemicals; cost £6, for £3.—Apply Robertson (Thomas and Co.), 10, Pall Mall.

Hand camera, 5 by 4, rectilinear lens, Grenhall's shutter, three backs, good condition; £2. Cabinet lens, Voightlander, 3 in. diameter bellows camera, splendid lens; £3.—J. Smith, Dalton, Rotherham.

Six Vergara half-plate Spanish mahogany double dark film slides, very light; 4s. 6d. each, or 24s. the lot. Automatic time and instantaneous shutter for 2½ in. hood, never requires setting, with pneumatic release, and arrangement for working behind lens, so that any lens can be used; 17s.—Dollery, 57, Ch. ring Cross, S.W.

Bicycle.—Safety bicycle, balls, equal new; £6.—Potter, Cyclist, 2, Peter's Street, Norwich.

Burnisher.—15 by 12 burnisher for sale, with



simp and gas jet, nearly new; 30s.—Andrews, 33, Ducie Street, Clapham.

**Cameras.**—Stirn's Vest camera, large size, perfect condition; 13s.—James Montgomery, Hanover Street, Strand-er.

**Cameras, etc.**—Half-plate camera, three double backs, rectilinear lens, stops, solid leather case, perfect condition; cost £8 10s.; take £5.—Knight, 13, Albion Street, Leeds.

Camera, 5 by 4, dark slide, and quarter carrier, in good condition; 10s., or exchange for backgrounds.—F. Hyland, Willesborough, Ashford, Kent.

Old pattern 8 by 5 bellows camera (by Stereoscopic Co.), with three double slides; 30s.—R. C. B., 5, Ravensbourne Park, Catford Bridge, S.E.

Half-plate camera, three double backs, rapid rectilinear lens, tripod, and leather case (Lancaster's), as good as new; cost £8 10s.; price £4.—M., 83, Breakepeare Road, Brockley, S.E.

Studio camera, 9 by 10 focussing glass, long extending bellows, folding tailboard, sliding front, want quarter size, useful changing bag; 15s. lot.—Moore, John Street, Lichfield.

Whole-plate camera (Rayment's patent), long focus, three double backs, leather case, and tripod stand, very nearly new.—No. 60, AMATEUR PHOTOGRAPHER Office.

**Camera, Lens, etc.**—Meagher's 5 by 4 bellows camera, long extension, all necessary movements, two lenses, locked case, equal to new, genuine bargain; £5 5s.—Clarke, Dentist, Louth, Lincolnshire.

**Dark Slides.**—Three Tylar's metal dark-slides, half-plate; 9s.—Henry Lord, 2, Town Street, Batley Carr.

Set of six Tylar's quarter-plate metal slides, to fit Lancaster's International, bought new last Easter; 10s. 6d.—Scott, Broadway, Stratford, London.

**Engine and Boiler.**—Highly-finished model engine and boiler; 25s., or exchange. Photograph 2d.—Gannon, Chelmsford.

**Hand-Cameras.**—Swinden and Earp's hand-camera, perfect condition; 90s., or offers in exchange.—Holland, 3, Mouton Road, Eccles, Lancashire.

5 by 4 Swinden and Earp's hand-camera, fitted with Taylor's 6 in. lens, almost new; price £7.—John Robson, 26, Scotch Street, Carlisle.

**Hand-Cameras, etc.**—Kodak, No. 1, perfectly new, hardly used, with rolls of 80 new rollable transparent and 80 stripping films; 55s.—Stevens, 209, High Street, Sheerness.

Demon camera, with two bags, and few plates; cost 5s. 6d.; price 3s.—F. Sharpe, Oakham.

Detective camera, same as Abraham's Ideal, will take 12 quarter-plates, R.R. lens, leather-covered; take £2 10s.; worth double.—Apply, Mons. Seavy, 164, Camberwell New Road, London.

Kodak, No. 1, nearly new, leather case and strap, with manual, etc.; to immediate purchaser, 55s.; cost £5 5s.—V., Franklin Road, Harrogate.

**Instantograph.**—Lancaster's quarter Instanto, complete, as new; 30s.—Belton, Octavius Street, Deptford.

**Lantern.**—Taken for debt. Enlarging lantern, perforated iron body, 6-in. condenser, triple wick lamp, front lens, extra extender, and stops, nearly new; cost £6; will take £4 for immediate sale.—McKesh, Photographer, 88, Seaside, Eastbourne, Sussex.

**Lenses.**—Lens, 7 by 5 rectilinear, loose hood, with stops, working to f/8, best finish, quite new; 27s. 6d.—1, Hermitage Mews, Stamford Hill, N.

Quarter-plate French portrait lens, splendid definition; 16s. 6d.—A. Bretton, Providence Cottage, Apton Road, Bishop Stortford.

For sale, a 5 by 4 Optimus extra-rapid Eury-scope, quite new, never been used; cost £3 3s.; will take 45s.—S., 22, Chetwynd Road, London, N.W.

Lancaster's half-plate wide angle view lens; 10s. 6d. Le Merveilleux half-plate lens; 7s.—Hayles, Union Road, Cambridge.

Dallmeyer 6 by 5 R.R. lens, perfect; 72s. 6d.—Wyatt, 225, Somers Road, Southsea.

Optimus 8 by 5 R.R.; 45s. Newman's shutter for same; 25s.; or together, 65s.—R. C. B., 5, Ravensbourne Park, Catford Bridge, S.E.

Half-plate extra-rapid rectilinear lens, with stops, in good condition; 30s.—J. Watkinson, 17, Hatherley Grove, Westbourne Grove, W.

Splendid whole-plate wide-angle view lens, rotating stops; 15s.—Gannon, Chelmsford.

**Lens, etc.**—Cabinet portrait lens, and several good 3 and 4-fold tripod stands, cheap.—A. Sprague, 35, Darnley Road, Hackney, London.

**Lenses and Shutters.**—Ross' whole-plate R.S. lens, new, £5; a similar one, fitted with Iris diaphragm, £5 10s.; a first-class wide-angle 12 by 10 lens, by Robert Watson, £3 3s.; a 10 by 8 wide-angle globe lens, capital for 12 by 10 interiors, £2; Wray's whole-plate wide-angle O lens, £2; Wray's whole-plate landscape lens, tapered mount, £2; a Thornton-Pickard shutter, fit hood 1½ ins., new, 15s.; a Watson double-snap shutter, for similar lens, 15s.—Captain Owen, Lansdowne House, Queen's Park, Southampton.

**Sets.**—Underwood's half-plate Instanto camera (1888), one double dark-slide, tripod, with rapid rectilinear lens, f/8; cost £5 5s. as new; bargain, 67s. 6d.—John Slade, Slad Road, Stroud.

Lancaster's Special 1886 camera, leather bellows, reversing frame, double rising fronts, double swing, two mahogany slides, three metal slides, stand, rectilinear lens, Iris diaphragm; cost £12; sell £7 10s.—C. Marsden, chemist, Nottingham.

Lancaster's quarter-plate 1890 Instantograph lens, shutter, tripod, two double backs, complete, equal to new; price £2.—H. Chappell, 12, Anhalt Road, Battersea.

Quarter-plate Raleigh camera and lens (Skinner and Co.), tripod, one mahogany slide, six Tylar's metal slides, with focussing screen and adjustment, printing frames, dishes, etc., all quite new; £3 3s.; approval; deposit.—S. Greer, Pier Plain, Gorleston.

Good quarter-plate mahogany box camera, focus, dark-slide, tripod, and lenses, in good condition.—Cash offers to J. H. Hoyle, 19, Rochdale Road, Milnrow, Lancashire.

Camera, bellows, 10 by 8, with four double backs, cone extension, tripod stand, inner frames, Bargeant's and Marshall's shutters, view finder, baitz bags for dark-slides, and box for camera; to be sold a great bargain.—Apply at Stanley's, 13, Railway Approach, London Bridge, S.E.

5 by 4 camera, Gotz's patent, central swing, revolving disc for lens, every possible movement, beautifully made; four double backs; set of Eastman's film carriers, all new; £7; also Lancaster's quarter-plate Instantograph, Ross lens; £2.—No. 59, at the Publishers.

**Set, etc.**—Good camera, combination lens, dark-slides, cloth, instantaneous shutter, tripod, cash 30s., specimen on application; 54 in. Coventry club bicycle, ball bearings, equal to new, cash £3, or what offers? Going to America.—George Pittcock, Manningtree.

**Shutters.**—For sale, two Newman's shutters, 15 by 12 and 6 by 5, exposure 2— $\frac{1}{2}$  and 1— $\frac{1}{100}$  of a second respectively, also a Right-about-Turn shutter, 2½ in. diameter; prices 25s., 17s., and 10s., or offers.—A. S., 25, Peel Street, Kensington, W.

Shutter (by Reynolds and Branson), 2½ diameter, cost 27s., price 12s. 6d.; drop shutter (by Watson), 2½ diameter, 5s.; both as new.—Walker, Scotchholme, Nottingham.

Phantom Instantaneous shutter with pneumatic Release; cost 27s. 6d.; price 12s. 6d.; will fit any lens.—F. Sharpe, Oakham.

**Stereoscopic Hand-Camera, Lenses, etc.**—Stereoscopic hand-camera, specially built to own design regardless of expense, takes twelve 6½ in. by 4½ in. plates in six backs, fitted with Dallmeyer's patent stereo lenses, working at f/4, and easily dissected for use as single combinations. Wollaston's patent diaphragmatic shutter, rising and falling front, swing-back, and all needful appliances for the most perfect hand-camera and landscape work; satisfactory reason for selling; may be seen by appointment; cost over £40; will accept £20 cash. Marion's (Knox's) hot rolling press, with 12 by 7 plate, cost £7 10s., will accept half; Marion's spray print-washer (special size), 2 ft. 8 ins. by 1 ft. 6 ins., with enamelled zinc tray, cost £3 15s., will take 50s.; Grubb's single aplanatic O lens, covering 12 by 10 in. McKellen's patent collapsible mount, cost £6, will accept £3; Lerebours' ditto lens, cost £3 10s., will take 30s.; one half and one whole plate Vergara dark-slide, cheap; Ferrero's 10 by 8 magazine film carrier, just new, cost £1 10s., will take £3 15s.; five dozen Carbutt's films to fit, and 3 dozen 10 by 8 Paget XXX plates, half-price; Kodak No. 1 detective, practically new, 50s.; other surplus accessories equally cheap.—Ajax, Gazette Office, 140, Fleet Street, London, E.C.

**Tripod and Case.**—Lancaster's half-plate tripod stand and carrying case, complete, new; cost 15s.; will take 10s.—Taylor, 23, Gausz Street, Paisley, N.B.

**Violin.**—Violin, case, and bow; cost 30s; take £25.—Thomas, 1, Grugos Terrace, Port Talbot.

**Watch.**—Splendid silver keyless watch, seconds hand, accurate timekeeper, nearly new; price £2. approval.—H. Chappell, 12, Anhalt Road, Battersea.

## WANTED.

**Camera and Lens.**—Long-extension 7½ by 5 camera, lens, etc., by good maker; particulars.—Clarke, Dentist, Louth, Lincolnshire.

**Case and Dark Slides.**—Leather case and dark-slides, for half-plate Instantograph, cash.—F., 10, Queen's Road, Coventry.

**Double Backs.**—Six Blair's quarter-plate Feather, weight double backs.—Wignall, 16, Ashley Road, Hornsey Rise, N.

**Ether Saturator.**—Ether saturator, for magic lantern.—T. Fawcett, King's Langley, Herts.

**Hand Camera.**—McKellen's, or Guinea preferred.—J. Dady, Pailton, Rugby.

**Lenses.**—Quarter-plate wide-angle rectilinear lens, also quarter-plate double dark-slide.—Crampton, 6, Rocky Lane, Birmingham.

Quarter-plate Optimus R.R.—J. Forrester, 95, Portland Road, Nottingham.

**Sets.**—Whole-plate camera set; approval.—Apply, Pitcher, 155, Kingsland Road, London.

A good quarter-plate camera and stand; state lowest price and make.—S. Kirkham, Court Place, Carlrow.

**APARTMENTS** for a City Gentleman in private house. USE OF DARK ROOM. Hot and Cold Bath. Near three railway stations, and buses to Charing Cross. Terms, Moderate. 14, Aldred Road, West Hampstead.

**CASH BARGAINS IN BEERNAERT DRY PLATES,**

To make room for new stock.

25 per cent. reduction. Lists on application to

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## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS of the *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

LANDSCAPE WITH FIGURE ... .. July 14.

GENRE OR FIGURE STUDY ... .. Aug. 14.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors.

In addition to the Medals being given, the prize photographs may be produced in the *AMATEUR PHOTOGRAPHER*.

All photographs for any of the above competitions must be received by the

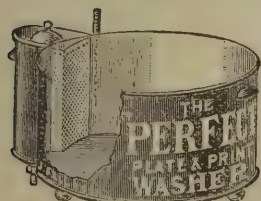
FOURTEENTH DAY OF THE MONTH, and as received will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

Competitive prints are available for exhibition before Photographic Societies after the 1st of each month.

Entry forms on receipt of stamped addressed envelope.



## NEW &amp; IMPROVED PATTERN.



By the introduction of the Double Cauze, the STICKING of PRINTS at outlet is ENTIRELY PREVENTED.



To produce permanent results, the perfect washing of plates and prints is the most important operation.

## JEFFERIES'

## PATENT "PERFECT" WASHER

Is introduced as the most rapid, compact, and efficient apparatus for plates and prints yet devised.

PRICES.  
In Japanned Zinc, to take  $\frac{1}{2}$  &  $\frac{3}{4}$ -plates, 12/- | Rigid Plate Rack, for holding  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  
" " to take up to 1/1 plates, 17/- | & 1/1-plates, also Lantern plates, 4/-

To be had from any Dealers, or the Manufacturers and Patentees—

JOHN FELL & CO., WOLVERHAMPTON.

Sole London Agents—

The Eastman Photographic Materials Co., Ltd., 115, OXFORD ST., W.

Dark-Rooms for changing plates no longer needed.

## "The Reliance"

Is the only Paper that can be depended on. Every Photographer, Amateur and Professional, should use it.

Sole Manufacturers—A. M. GEERING & CO.

This is the only Paper in the market that performs absolutely all that it is guaranteed to do.

"THE RELIANCE" is free from mealiness, has a very high surface, will not crack or blister under the most trying circumstances, and has no objectionable smell whatever. It prints rapidly, and tones with the utmost uniformity.

Every sheet sent out is guaranteed to be perfect, and to keep pure in colour, in any climate, for 12 months. We have numerous testimonials from eminent men in all parts of the world.

PRICE, including postage, throughout the United Kingdom: Quire, 14/6; Half-Quire, 7/6; Quarter-Quire, 4/-; Sample Sheet, 1/-

Cheques to be crossed "London and County Bank."

All communications to be addressed to the

Manager—Mr. E. J. GEERING,

15, YARTRY ROAD,

Stamford Hill, London, N.

Testimonial from T. J. EDWARDS, Esq., Photographic Artist, West Bromich.

Messrs. A. M. GEERING & CO.

GENTLEMEN,—I toned some of the paper you sent me with a batch of other prints yesterday, and the result is perfection. I have been using other London papers for some time and thought them very good, but really yours should be styled *better than the best*. I have never in all my experience seen paper yield such a lovely result as the "Reliance" does. I shall certainly recommend it to all my friends. Kindly send enclosed order at once. Wishing you every success.

Yours truly, EDWARDS.

This is a fair sample of the many testimonials we receive every day, and all are unsolicited. Send for sample sheet, 1s., post free. Every sheet stamped "Reliance."

## DEVELOPMENT IN DAYLIGHT.

An addition and convenience for the Dark Room.

## WILKINSON'S PATENT.

Light tight cover for Developing Tray.

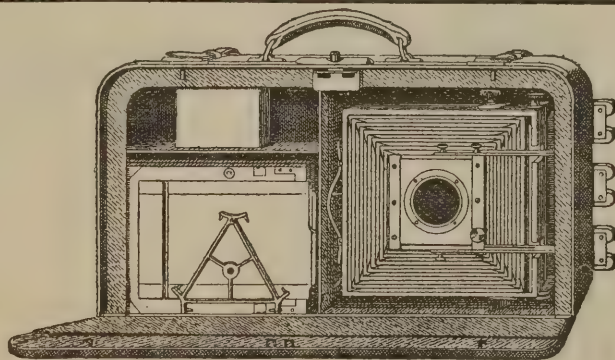
Instantaneously applied when development may be safely proceeded with in Actinic light, thus greatly saving the operator's time in the Dark Room.

$\frac{1}{2}$ -plate size, 1s.;  $\frac{3}{4}$ -plate, 1s. 3d.; 1-plate, 1s. 6d.; postage 3d. extra.

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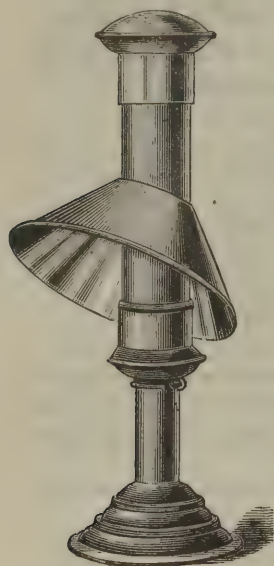
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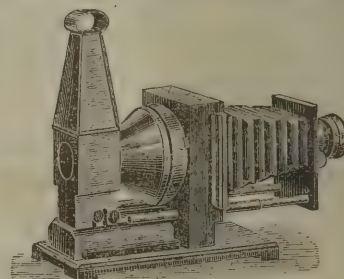
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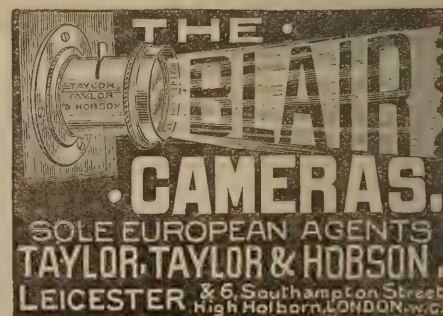
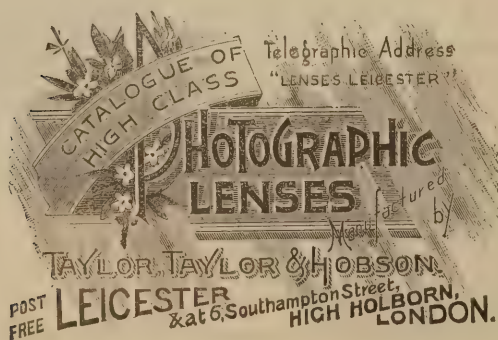
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# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645  
Telegraphic Address: VINEY, LONDON  
Edited by CHARLES W. HASTINGS

VOL. XII. No. 301.]

FRIDAY, JULY 11, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—*Shakespeare.*

WE have often been asked to test lenses, and have had seriously under consideration the establishing of a testing department, but the heavy expenses necessary to put down the requisite apparatus, etc., have so far deterred us. We are glad to be in a position to state that owing to our having opened up a correspondence with Mr. G. M. Whipple, Superintendent of the Kew Observatory, it has been determined to add as a section to the testing department the testing and examination of photographic lenses. We have been favoured with a copy of the suggestions proposed by the Kew Committee of the Royal Society. We are not justified at present in publishing them in full, but may add that there will be two classes of tests, A and B. For the former a fee of 10s. 6d. will be charged, and for the latter 2s. 6d. The suggestions as to what will be covered by both tests in our opinion thoroughly meet the requirements of the buyer of lenses.

In the watch trade Mr. Whipple tells us that tests have greatly improved the correctness of the watch, and that now no dealer will buy a watch from the maker unless he can show the Kew certificate. At first the trade resented the test, but now it is accepted as a necessity that each watch shall be turned out so that it complies with all the requirements of the Kew tests. Our readers will give us credit for again looking after their interest in bringing this matter before the Kew Committee, and the result of the action of the Committee will be the ridding of the market of a lot of worthless lenses that are not made in this country, but which are sold by dealers at large profits. All the best makers of lenses take care that their lenses shall be thoroughly tested; therefore they will have no cause to regret that a purchaser will be able to send the lens to Kew, and for those who send out lenses which are not tested the errors will be pointed out, and if they are wise men of business they will set to work to remedy the errors and sell only such instruments as will pass the Kew test.

Mr. Whipple will have earned the thanks of all for having so quickly acted upon the correspondence that we have had with him, and focussed the whole business so readily and laid it before his Committee with such capital results. As soon as the necessary apparatus is set up, of which due notice will be given in these columns, the public will be able to send their lenses to be tested, and have, in return for their fee, a certificate setting out the capabilities and faults of the lens.

THROUGH the courtesy of the Secretary, Mr. A. J. Melluish, we have had an opportunity of inspecting the photographs contributed by the members of the Amateur Photographic Association, and which have been awarded prizes by the Committee. We refer to them at some length in another column. It will be noted that H.R.H. the Duke of Cambridge has been elected a Vice-President. The Association has not a large number of members, but it is the oldest society of amateur photographers, and certainly the most select; it is the only society that Royalty has ever supported, and amongst its members are ladies and gentlemen, not only of high distinction and social rank, but also many well known in the world of art and science. With such members and an exceptionally influential Council, we should not be surprised to see the Amateur Photographic Association come out of its seclusion and take up the position it should as the premier society, secure a royal charter, and carry on for photography that which is so well done by other royal societies for kindred arts and sciences.

\* \* \* \*

THE PHOTOGRAPHIC QUARTERLY has been well received. Thinking that the members of photographic societies would be interested in the chromo-collotype, our publishers have sent a copy of the illustration, printed from Mr. Bligh-Bond's negatives, to almost all the societies; those who have not received a copy can have one sent on receipt of postcard. We understand that the QUARTERLY is having an exceptionally large sale, and as the issue is limited, we should advise early application for copies. Binding cases are being prepared, the last number completing the first volume.

\* \* \* \*

THE Editor of one of the many American photographic publications sends us a circular-letter stating that "The invention of photography in natural colours has just been accomplished. The method employed is in permanent inks and orthochromatic photo-gelatine impressions." This statement appears rather bold, but we give it as received.

\* \* \* \*

THE *Camera Club Journal* states that "The agreement entered into for the lease of new premises for the club is now completed and signed. Particulars as to the site and the accommodation to be provided have already been published, but we may here repeat that the premises are situated in the Charing Cross Road, considerably above, and on the same



side of the road as, the Garrick Theatre. The house abuts upon what was formerly Cecil Court. Considerable progress has already been made with the building, and there is every reason to believe that the Club will be in its new home well before the end of the year."

\* \* \* \*

At the moment of going to press, we have received a very lengthy communication from Mr. W. H. Walker, Managing Director of the Eastman Photographic Materials Company, Limited, which includes a long letter from Mr. J. Traill Taylor. We regret our inability to publish this communication in this issue, but we will do so next week.

\* \* \* \*

In answer to enquiries, we beg to say that the awards in the "Travelling Studentship Competition" will be announced next week.

\* \* \* \*

SOME very interesting experiments have recently been made with Scholzig's matt-surface paper by Mr. E. A. Gollidge. He has secured results very nearly approaching those obtained on platinotype paper, and in order to test their permanency has immersed them in a solution of nitric acid, out of which they have been taken and found not to have suffered in the slightest degree. He has also secured very beautiful results by printing through coloured glasses. We shall hope to give some further particulars at a later date.

\* \* \* \*

We have upon many occasions commented upon the good work being done by the Manchester Amateur Photographic Society, and we cannot refrain from drawing attention to a letter from a member which appears in the July issue of the *Journal of the Society*. The subject is "A Photographic Hospital Fund," and in it he says:—

"If every photographer could realise the joy one such print creates in a convalescent ward, there would soon accumulate a good stock of photographs in every hospital and workhouse in the country. And such there ought to have been long ago. Is it not time for us to give of our talents as well as of our money? It has too long been the fashion to absolve ourselves of our duties to the sick by the donation dropped into the Hospital Sunday box. The energy spent in acquiring that amount might have gone much farther expended direct. We pay others to do work we often could do better ourselves. The half-crown given by the amateur photographer, for instance, would be a larger amount spent in prints from one of his best negatives. I trust I am not misunderstood here. Far be it from me to suggest anything that will tend to reduce the annual hospital collections. I wish them increased by collecting results from talents as well as profits. I would therefore suggest that our Committee start a Hospital Fund in connection with our Society for the receipt of prints from Members, not annually, but at every Monthly Meeting and whenever Members might choose to send them. And, instead of having them mounted in albums, which are too heavy to be held by a patient in bed or on a couch, let them be put on cardboard mounts, so that they can be distributed at will. Let those who cannot afford mounts send their prints without, and let us vote a sum from our cash account to provide mounts."

We commend this matter to the serious consideration of other photographic societies, and shall hope to hear that many are working for the hospitals.

\* \* \* \*

We shall be very glad if our readers will send us mounted or unmounted prints for hospital albums and cards. We shall also be glad of gifts of albums with or without photographs in them, and would ask those who cannot help us with either albums or photographs, to send us subscriptions in order that we may purchase albums and send them with prints to mount in them to the many ladies and gentlemen who have kindly volunteered to do the work.

It pleases us very much to find that stereoscopic photography is gaining ground; there are not wanting signs to prove that this is the case. We noticed in a report of the Sheffield Photographic Society, that it was resolved to purchase three stereoscopes for the use of the members, because so many of them were taking up stereoscopic work.

\* \* \* \*

THE Home Industries Exhibition will be held at the Crystal Palace in connection with the third great National Co-operative Festival. We note that silver and bronze medals are offered as first and second for photography, and as third prize the "Herkomer" certificate, which has been designed by Professor Herkomer, R.A., and represents: "The Spirit of Success holding up the warning finger of one hand, whilst it holds the laurel wreath in the other. It rewards (although backed by the wheel of fortune) only true merit." These are the artist's own words, descriptive of the design, which consists of a single noble female figure, seated at the portal of a temple, the steps of which form her throne. Any one wishing for further information should apply to Mr. W. Broomhall, 49, Bedford Street, Strand, W.C.

\* \* \* \*

So much interest is now being taken in all photo-mechanical processes, that the very excellent manual, "The Photographic Reproduction of Drawings," by Colonel Waterhouse, which has been published for him by Messrs. Kegan Paul, Trench, Trubner and Co., will be read with much satisfaction. The author commences with a chapter on "The Advantages of Photography," touching upon the difficulties to be overcome, the classification of drawings for reproduction, and the use of orthochromatic photography. He then describes, in clear and distinct language, photolithography, photo-typography, photo-engraving, photocollotype and Woodburytype. Of this latter process the author says:—"Owing to the peculiar method of printing by squeezing out the gelatinous ink, it is almost impossible to obtain the clear black lines and pure white ground so indispensable in an outline drawing. The prints also have to be mounted, which is an objection. However, in special cases where the work is within the capabilities of the process, it will be found valuable, because it possesses the great advantage for the reproduction of half-tone subjects that the printing of an almost indefinite number of copies can be carried on with as perfect certainty as in ordinary lithography or engraving, while in beauty, transparency, and delicacy of gradation the Woodburytype prints are undoubtedly superior to collotypes and most other photo-mechanical prints when resemblance to ordinary silver print photographs." We have by this mail sent to the gallant Colonel a copy of the last edition of the *QUARTERLY*, in order that he may see the advances made in the Woodburytype process, and that it is no longer necessary to mount the prints. Writing upon "photo-engraving, or heliogravure," he says, "The photo-engraved copper-plates may have details, or lettering taken out or added by hand, or may be touched up with the graver, dry paint, or roulette, and in fact treated in all respects with regard to touching up and corrections in the same way as ordinary hand-engraved plates." The reason that we have not in our several publications adopted photo-gravure is because we contend that by nearly all workers the plate is worked up by the graver, and is not therefore a faithful reproduction of the photograph. The instructions, preparation of drawings in line, tracings and tracing prints in line, type printing for maps, half tone drawings in wash, monochrome or colour, pencil, chalk, etc., are most exhaustive, and the book, as a whole, is a most valuable addition to those already published upon photo-mechanical work.



## Letters to the Editor.

### CHEMICALLY HARMLESS PAPER?

SIR,—Allow me to caution my brother amateurs against placing a sheet of "chemically harmless paper" between exposed films as suggested by your correspondent, Mr. Mann, in your issue of the 27th June. I started for India in October, 1888, with twelve dozen of Wratten and Wainwright's plates, 12 by 10, and sufficient "chemically harmless paper," supplied by the same firm to place between each plate. These plates were developed in 1889, and all are ruined by the mark of the grain of the paper. The plates were perfectly dry and kept in the cardboard boxes they were sold in by the makers.

LLANIDLOES.

Allow me to call the attention of amateurs to the beautiful scenery in the upper part of the Wye Valley, as yet unvisited by the amateur photographer. The village of Llangurig is five miles from Llanidloes, and boasts a good hotel called the "Black Lion," with a bath-room easily convertible into a dark-room, with a good supply of water—river, lake and mountain scenery abounds; and there are good golf links and fishing; but because a little off the beaten track of tourists, the manifold attractions are ignored.—Yours faithfully,

July 2nd, 1890.

GEO. H. VERNEY, Lieut.-Col.

\*\*\*\*\*

### THE ACTION OF LIGHT UPON THE SENSITIVE PLATE.

SIR,—As the remarks you make in last week's AMATEUR PHOTOGRAPHER respecting our method of determining the speed of plates are somewhat misleading, will you kindly publish the following correction in your next issue?

You credit us with having invented an instrument for "testing the rapidity of dry plates." This does not exactly represent the case. What we have actually done has been to discover the law which expresses the action of light upon the sensitive plate, and a knowledge of this law led up, as we anticipated it would, to a method of testing and comparing the relative speeds of plates which at the same time reveals other important characteristics of the plate. Our method is shortly that of exposing the plate to be tested in the influence of a standard light; and the instrument, to which you call attention, we invented simply to convert the results of these exposures into figures, the examination and comparison of which supply the data upon which the speed and other characteristics of the plate are estimated. The instrument plays the same part in photography that the balance does in chemistry, and enables the photographic experimentalist to estimate his results quantitatively.

Anthony's Climax celluloid films, though excessively rapid, do not attain to the highest rapidity we have so far met with. The greatest sensitiveness we have as yet found was in the case of some plates of American manufacture, Cramer's "Lightning." The Actinograph speed of these plates is 80, which is about 395 times that of a wet plate, while the Actinograph speed of Anthony's films is 63, or about 314 times that of a wet plate. While we agree with you that it is probable the semi-opacity of the celluloid may conduce to rapidity, it is clear the speed of Anthony's films is necessarily due to the celluloid basis, as, in the case of Cramer's plates the basis is, of course, glass.—Yours truly,

HUNTER AND DRIFFIELD.

\*\*\*\*\*

### HYDROQUINONE.

SIR,—I am strongly of opinion that most, if not all, of the failures with hydroquinone arise from the use of that unsatisfactory salt, sodium hydrate, which all makers now recommend as their standard formula. It is very violent and uncertain in action, highly deliquescent, and from its caustic nature, productive of frills and blisters. Like your last week's correspondent, I lost many good negatives from its use, till I gave it up in disgust, and returned to Thomas's original formula (carbonate of potash and washing soda), which has never failed to yield excellent results, clean, brilliant, soft negatives, full of detail, good density, and very quick printing. I can only recommend others who have difficulty with hydro to discard the sodium hydrate, and try carbonate potash and washing soda. As to returning to feeble, dirty, evil-smelling pyro-ammonia, (like Mr. *Punch*) my advice is—Don't.—Yours, etc.,

W. H. H.

### PACKING DRY PLATES.

SIR,—There is no doubt that I am quite wrong, and that Mr. Mann and Mr. Gottlieb who replied to my letter which appeared in your journal a fortnight ago are right as regards the danger of the actual contact of film with film. I repeat that I have not had to regret packing them so myself, but I have received so many letters expressing the opposite view, that I certainly shall use tissue paper between the plates in future. But apart from this point, I am sure the method of packing plates I have adopted and recommended is a good one.—I remain, yours very truly,

GEO. LINDSAY JOHNSON.

\*\*\*\*\*

### "F. G. S." AND THE CONVENTION.

SIR,—I do not know who is the versatile, if superficial, scientist who sheds lustre on your columns by his "Science Notes" over the initials "F. G. S."; but whoever he might prove to be, if stripped of his sheltering *nom-de-plume*, it is pretty clear that the Photographic Convention has either been blind to his doubtless conspicuous merits, or has rubbed his sensitive skin the wrong way.

He seems to insinuate that the executive of the Convention is responsible for the "public" impression, which exists solely in the imagination of "F. G. S.," that British photographers "flock in their thousands" to the Convention. He seems also to insinuate that the Secretary either conceals or falsifies the true state of the case, and he "believes that the average would work out at about 100." I believe it would "work out" a little over 100, and more's the pity I cannot say 500. Considering the objects of the Convention, and the good times the members have had, the wonder is that the membership is not much larger. But "F. G. S." might have spared us his withering allusion to "Tailors" and "Tooley Street" until he found us misrepresenting facts. Still, his insinuations and criticisms are so beautifully vague on this point that he may be able to wriggle out of them by saying he meant no harm. His next assault is much more tangible, and conveys to your readers a completely false impression.

He says Mr. Newman's paper "was simply a savage, personal attack on Dr. Emerson." As I read the paper myself I am supposed to know its contents. The Emersonian school has not much to say in the matter of "savagery," and the paper had nothing of "savage" in it; as to personality, I defy "F. G. S." to find a single word personal to Dr. Emerson in the paper. The writer criticises none too severely the published works of Dr. Emerson, and, I presume, published works even by Dr. Emerson and "F. G. S." are open to criticism; but of allusion to Dr. Emerson as a person there is not a syllable. The writer did not even know Emerson to be a doctor. I, therefore, flatly contradict "F. G. S." in his statement that the paper was personal, and I ask your readers to read the paper and see whether the fair boundary of criticism is in the slightest degree passed.\*

I also contradict the gratuitous assertion that no such paper would be accepted by the "British Association, or indeed by any of our chartered scientific societies," not that I see what these societies have to do with the question. I have by me many papers read before scientific societies containing arguments couched in much stronger language, and contradictions much flatter than any that can be found in Mr. Newman's paper.

I may say in passing that it must indeed be an "exceedingly clever instrument" that shows the speed of an emulsion on celluloid to be "314 times that of a wet collodion plate." As "F. G. S." mentions tailors, I would suggest *Marines* as a subject for his next study.—I am, yours, etc.,

ANDREW PRINGLE.

\*\*\*\*\*

### DEVELOPMENT.

SIR,—Your correspondent, "Captain," has started a very interesting subject—in fact, one that touches the very root of photography—development.

Anyone can uncup a lens, or put his finger on the trigger of an instantaneous shutter, but not everyone can properly develop a plate; hence the importance of getting the best developer for that purpose. It so happens that during the last three weeks I have amused myself by carrying out a series of experiments with plates made by Wratten, Paget, Mawson, Ilford Company, Thomas, and Abney, and I have tried a large number of formulæ upon each series with pyro, hydroquinone, eikonogen, and graphol, and I have come to the conclusion that as an all-round developer

\* The paper in question is published in this issue.—ED : AM : PHOT :



there is nothing can beat good old pyro. I do not mean to say that good negatives cannot be obtained by the other developers; but as far as I am concerned I cannot get the same pluck or brilliancy that pyro gives.

With regard to eikonogen, my experience is that it is more suitable for portraiture than for landscapes, and of the developers named I would certainly place it low down on the list.

I am surprised at "Captain's" statement that he ruined his negatives with hydroquinone. I think if he will use a suitable plate, such as Thomas's, with his developer, his negatives will not be spoilt.

If, when your correspondents favour us with a new developer, they would say for what make of plate it is suitable, the information would be valuable, because my experiments show that hydroquinone and eikonogen are not at all suited for some makers' plates.

To sum up, I would say that I have succeeded best with hydroquinone and Thomas's plates, but with pyro in the others I have mentioned. The Germans appear to succeed with eikonogen, but as we do not know what particular plate they use an important factor is lost.

I may add that hydroquinone is well suited for Edwards' isochromatic plates, and I hope that this correspondence will lead to some valuable information on the subject of development.—  
Yours truly,  
A BUYER.

July 7th, 1890.

\* \* \* \*

#### PENARTH.

SIR,—A query was asked in your useful paper a short time ago respecting Penarth as a photographic locale. I regret that no one has answered that query, for Penarth is a veritable photographer's paradise. Naturally situated on a bold headland, the cliffs and the shore are the foundation up which to work. The town is a miniature Scarborough, and every point bristles with artistic gems for the camera. The walk from the station to the beach is through a delicious natural valley, beautified by art, rustic bridges, artificial waterfalls, overhanging trees. In every direction are tit-bits—the rocks, the boats on the beach, the skeletons of wrecked ships. On the sea is one constant stream of life. There are more vessels passing than on any one part of the English shore. The church, the hotel, in its five acres of exquisite park, the district, are all beautiful. Take the train from Penarth, and in ten minutes you are in Cardiff, with its docks, castle, river, and public buildings. From Cardiff in every direction exquisite scenery is scattered with lavish hand. Up the vale of Taff there is scarcely a spot but what is interesting. Llandaff Cathedral, Caerphilly Castle, Castel Coch, are well-known spots. But if mountains, valleys, glens, hills, waterfalls, picturesque cottages, quaintly dressed women, can be made to yield pretty pictures, then the journey, from Penarth to Brecon, or Penarth to Abergavenny, must cause any true artist to revel in delight. Penarth is the healthiest town in England, lodgings cheap, omnibuses, boats or trains to Cardiff every five minutes, leaving that town after the theatres are over at night.—Yours, etc.,

A FORTY YEARS' PHOTOGRAPHER.

\* \* \* \*

#### THE RICHMOND PHOTOGRAPHIC SOCIETY.

SIR,—A meeting to promote the formation of a photographic society for Richmond and the neighbourhood was held on the evening of the 7th inst., at the Railway Hotel. Major J. Fortuné Nott was elected Chairman, and the following resolutions were passed:—

"That the society be called the Richmond Amateur Photographic Society."

"That Mr. E. G. Richardson be appointed Hon. Secretary *pro tem*."

"That Messrs. Ennis and Richardson be appointed a Committee to engage suitable rooms for the society, and to draw up draft rules to be submitted at the next meeting, which has been fixed for Monday evening, the 14th inst."

The evening was very wet, but notwithstanding this, fifteen gentlemen attended, and gave in their names as members of the society.

Major Nott pointed out that Richmond was in an exceptionally favourable situation for the establishment of a really good society, being in the centre of scenery known all over the world, and the resort of large numbers of persons interested in photography

and he had no doubt that, with the expenditure of a little time and trouble on the part of the original members in introducing the society to the notice of gentlemen likely to become members, the Richmond Amateur Photographic Society would speedily become prosperous.

I may mention that there is a good prospect of very suitable rooms close to the station being engaged and placed at the disposal of the members in the course of a week or two. Major Nott was kind enough to offer to give a lecture himself in the course of the winter season, and it is proposed to give an exhibition of photographs and lantern slides later in the year.

I need scarcely add that I shall be very pleased to hear from any gentlemen wishing to join the society, and to send them a notice of the time and place of the meeting to be held next Monday.—I am, yours faithfully,  
E. G. RICHARDSON.

20, Hermitage Villas, Richmond, Surrey.

\* \* \* \*

#### BUYER AND SELLER.

SIR,—Allow me to add my experience to the correspondences on the subject of Buyer and Seller.

Two years ago I purchased a roller slide from a well-known maker, not Messrs. Eastman and Co.; it was constructed to carry a spool of 48 exposures. I took it to India, and my first discovery was that it would not hold a spool of 48, and I could only use it by cutting off and sacrificing about six exposures. I was then in the Sind jungle, far away from any skilled workman, or I might perhaps have had the slide altered; but I at once ordered a fresh supply of spools of 24 exposures, which Messrs. Eastman forwarded without delay.

I exposed over 200 of them, and returned home in the following spring. My next discovery was that the rollers, instead of marking off exposures of  $6\frac{1}{2}$  ins., marked them in lengths of nearly 7 ins., and as I had cut up the first spool into lengths of  $6\frac{1}{2}$  ins., every picture was spoilt, and the other spools I have only saved by developing each exposure before the next was cut off, and making a small allowance as required.

I returned the roller to the maker with a mild remonstrance, written in a tone of sorrow rather than anger, and in due time the roller was sent back with courteous expressions of regret and an assurance that it was now in order.

Relying on this assurance I cut the next exposed spool into  $6\frac{1}{2}$  in. lengths, and found that the roller had been made to roll off exposures of  $6\frac{1}{2}$ , and again a whole spool was spoilt. The roller was again sent to the maker, returned with repeated assurances that the defects had been corrected, and again found to be unworkable.

I cannot remember without a reference to the papers whether the maker has altered the roller three or four times, but on the last occasion it was returned to me the apparatus for printing off the exposures was put out of order, so that it failed to make any impression on the film, the light leaked into the roller, and there is a blank space of half an inch between each exposure, so that in a spool of 48 two feet of the films are wasted.

I returned the roller to the maker for the last time, with a polite intimation that if it were not put in perfect order I should place the case in the hands of my legal adviser. To this he replies that I owe him 7s. 6d. for previous repairs, and this sum having been paid, I am now waiting to see "what will he do with it." On public grounds I do not intend to let the matter drop.

On the general question now under consideration in your paper, I may say that I have invariably met with the greatest civility and honourable treatment from photographic dealers. The case I have related is entirely exceptional, though my experience extends over thirty years.—I am, etc.,  
A.

SIR,—It astonishes me that you have allowed the discussion on "Buyers and Sellers" to assume such a pitch of enthusiasm for good, and you will be heartily thanked after the cloud of smoke has passed away for your manliness and honesty of purpose. Very few journals, photographic or otherwise, will allow the truth to come out if it militates against the interest of advertisers. Although there is a class of persons or "growlers" who are everlastingly complaining to the photographic journals, I hope I shall not be classed amongst that number by giving you an instance of the misleading accounts of apparatus described in the photographic press. I saw a walking-stick camera stand advertised, and asked for particulars. A circular was sent me in



which the AMATEUR PHOTOGRAPHER, amongst others, described the stand as extremely rigid, and as for portability there never was, to their knowledge, its equal. The price of this stand was valued at 18s. 6d., which is identical with the price of Ashford's famous tripods. Although I did not give this amount for it, I relied upon the printed testimonials, and purchased it without approval. I shall be glad if the Editor, or any of his readers, would take it off my hands for five shillings. I will not point out its disadvantages for fear that this price will not be reached. It is to be hoped that practical and responsible reports will only be inserted for the guidance of your readers in the literary column, and when your district editorships are formed that all "humbugs" and "make-believes" should be exposed, so that your opinion may be strictly reliable and trustworthy.

Regarding the formation of a co-operative society for the supply of apparatus, etc., your subscribers should be very wary in starting such a scheme. The large co-operative societies in London supply photographic goods at discount prices. So that the great expense of forming a separate establishment with a directorate, and the greater facilities persons living in the country now have in getting things at London prices of local dealers, give the scheme a poor outlook as to success. Thanking you in anticipation for laying these few ideas before your readers—I am, yours truly,

S. E. K.

Reading, July 7th, 1890.

[NOTE.—Our correspondent does not give any particulars as to name of maker of walking-stick camera stand, but we recently noticed the stand made by Mr. R. Abraham as follows: "It is most ingenious, quite rigid enough for hand-camera work, and a useful companion on a lonely road." We should not have made such a statement did not the apparatus fully warrant it.—ED: AM: PHOT:]

SIR,—“Camera Maker” assures amateurs they are not paying fancy prices for their apparatus. I wish I could endorse that assurance. Being in want of a good 10 by 8 landscape camera and three double slides, upon the advice of a brother amateur photographer I bought one at a well-known London house; the price charged was £14, less 10 per cent. discount for cash. I must say the camera was all that could be desired. A friend of mine has just had the same size camera and three backs equal in every respect, and superior in several points, made by a first-class maker for £8 10s. I have yet to be convinced that I did not pay a fancy price.—I am, yours faithfully,

CAPTAIN CUTTLE.

\* \* \* \*

## DARK-ROOMS.

SIR,—A week or two ago I sent an enquiry to your paper asking if there was a dark-room at the Lizard, and a gentleman at Penzance was good enough to answer this enquiry to the effect that at one of the hotels (he could not remember which of the two) there was a dark-room for the use of visitors. On getting here, however, I find there is no dark-room in the place, and in consequence I have been caused a lot of needless trouble, as, relying upon your correspondent's reply, I did not bring chemicals and apparatus for developing, expecting to find some on the spot. I send this note, as no doubt others have seen the reply to my enquiry, and will be misled likewise. I also venture to add that before replying to queries inserted in your paper persons should be sure that the information they give is correct, as it is obvious that incorrect information may often lead to very serious inconvenience.

I may say that the proprietress of this establishment placed a dark cellar at my disposal, where, after having obtained the requisite material, etc., from London, I was able to successfully develop all my plates. This district is certainly the paradise of photographers, and a week spent at the Lizard with a camera is about as enjoyable an experience as an amateur photographer can desire.—I am, sir, yours faithfully,

FRED. A. ROBINSON.

July 8th, 1890.

MR. A. R. DRESSER writes: “I have just returned from Bettws-y-Coed, North Wales, which is a fine place for those who care for foliage and waterfalls, and there is some good work to be done there. There is a good dark-room for changing plates at the chemist's (Mr. Perry) opposite the railway station, and he also stocks Ilford plates in various sizes, and is willing to let any one use the dark-room, so I write to inform your readers, so that any who go there will know what to do. They are also putting up a dark-room at the Hotel Waterloo, which will be ready soon.”

## The Stereoscope.—V.

BY VALENTINE BLANCHARD.

HAVING demonstrated the difference in the perspective of the pictures presented to each eye, we may proceed to consider the application of this fact as shown in the stereoscope of Wheatstone, the first conception of which may with justice be regarded as one of the greatest optical discoveries of this century. In his paper on this subject, published in the “Philosophical Transactions” for 1838, he says, “The problem to be investigated was, What would be the visual effect of simultaneously presenting to each eye, instead of the object itself, its projection on a plane surface as it appears to that eye?” The solution of this problem resulted in the reflecting stereoscope.

He placed two mirrors, about three inches square, so that their backs were at right angles to each other. Geometrical drawings were made perspective correct for each eye—made, in fact, exactly as each eye would see the solid object of which the drawing was the outline. As, however, the picture was inverted by the mirror, it became necessary to place the drawing for the right eye on the left side, and the one for the left eye on the right side. The two pictures were moved about until they occupied their proper place. This was shown when the beholder placed himself immediately in front of the vertical angle made by the two reflectors, and so close that each eye could only see its own picture reflected. When the right position was obtained, the pictures were merged into one, and appeared in a solid form at the back, or, rather, through the mirrors, for there was no appearance of mirrors whatever, and the picture looked solid.

A careful examination of the accompanying diagram (fig. 1) will, it is hoped, make all clear. An arrow is used to

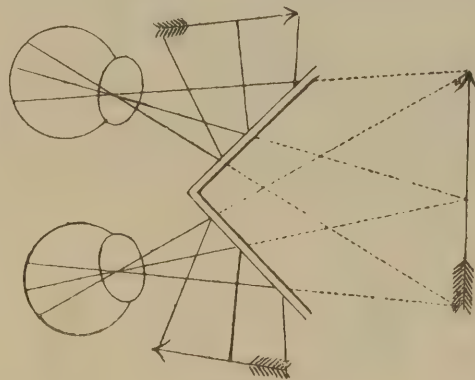


FIG. 1.

represent the picture, as the barb and wing of the arrow are sufficiently distinct to mark clearly the position with regard to left and right in the diagram. The two arrows are reflected by the two mirrors into the right and left eye respectively, and appear as one arrow through the mirrors, as shown by the drawing.

Sir David Brewster deserves all credit for giving to the world that portable and practical instrument known as the lenticular stereoscope, or the stereoscope with lenses, to distinguish it from the reflecting instrument of Sir Charles Wheatstone; though as the former is the one that has survived, in consequence of its compactness and portability, it is now known all over the world simply as the stereoscope. The same end is attained by Brewster's instrument—viz., the compelling of each eye to see its own picture; but the method of procedure is different. He employed lenses cut in half and inverted, but his mode of procedure will be



best described as follows:—"If an object be viewed through the centre, or, more properly, along the axis, of a convex lens, it will be seen exactly in front of the eye—*i.e.*, in a line with the eye, the centre of the lens, and the actual place of the object. If now the lens be moved slightly to the left, the object will appear to advance to the right; and, conversely, as the lens is moved to the right, the object is displaced in the opposite direction. Let the lens be cut in half transversely, and the two semicircular pieces reversed as to their former position—that is, placed side by side, and so that their thin edges shall be adjacent, while the two plane edges formed by the section of the lens are kept in mutual parallelism and have their faces turned outwards towards the left and right respectively. The right eye will now look through the left half of the lens, and *vice versa*, and the two pictures, each placed opposite its appropriate eye, and in the principal focus of the eyepiece, will be seen, not in their actual places, but in a position midway between the two. The subsidiary purposes served by this arrangement are, that the pictures are magnified as well as caused to coalesce, and that the equality of the magnifying power of the eye-pieces (a result by no other means certainly attainable) is secured by the fact of their being cut from the same lens, the whole of which is thus advantageously and economically utilised." It will be shown later on that this cutting of the lenses is not at all necessary; but for the moment let us examine the diagram here furnished to show the application of Brewster's principle, which, by the way, had been forestalled by Wheatstone, only he employed prisms instead of lenses, and had not succeeded in making such a convenient and portable instrument.

Before proceeding to the examination of the diagram, however, the reader is asked to look at a stereoscopic slide, if he has one; if not, to take two small photographs of the same subject. Two carte or cabinet portraits will answer admirably. He will find in the case of the stereo slide that when he looks at the right-hand picture he is conscious only of the left-hand one—he does not see it distinctly; and *vice versa*, when he looks at the left-hand one he only dimly sees the right-hand picture, for he does not see it critically. Now by the two prisms, or half lenses of Brewster's stereoscope, each eye is *compelled* to see its own picture.

Now let us look at the diagram, fig. 2. The object looked

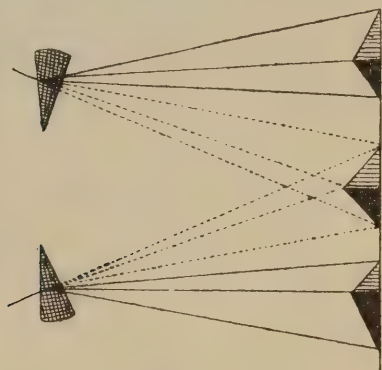


FIG. 2.

at is supposed to be the picture of one of the small pyramids used in drawing from the solid in art schools. The reader must remember what has been already said about each eye seeing most of the side of an object nearest to it; and then he will see that the side of the supposed pyramid on the right hand side is larger than that on the left; and in like manner the left-hand side is largest, as shown by the lines; but when the two pictures are blended and appear in the centre,

then the two sides of the pyramid are equal, and, of course, appear solid. After these remarks it is to be hoped that a careful examination of the diagram will make all clear to the reader without the aid of a number of letters to mark the various lines, and which only too frequently bewilder the reader still more; at least, that is the writer's experience. The prisms or half lenses are, it is hoped, sufficiently intelligible in the drawing, and if so, then it will be made clear that by the refracting power of the lenses the image of each picture is compelled to enter its own eye, or, in other words, the same sensation of perspective is offered to each eye as would take place in looking at the original subject instead of its counterfeit presentation.

(To be continued.)

## The Electric Light and Photography.—VI.

By T. C. HEPWORTH, F.C.S.

A HOME-MADE bichromate cell, like that already described, is capable of providing a current with energy enough to illuminate a glow lamp of about two-candle power. A couple of such cells will work a small induction coil, or can be put to other experimental uses, and its most convenient feature is that it can readily be put in or out of action by inserting the plates in, or removing them from the outer cell, and, of course, the same result can be brought about by pouring on or off the bichromate solution. But supposing that the cell has been in continuous action for three hours, its force will gradually decline until it ceases altogether. Upon renewal of the spent battery solution the cell will work as well as ever.

The worker, when he has made one cell will probably not be content until he has one more to use in conjunction with it, an addition by which he can greatly increase his resources. In this case his best plan will be to fit the cells into a stand made of two pieces of board supported one above the other, and about three inches apart, the upper board being pierced with round holes for the reception of the jars. The supports of the upper board should be in the form of two posts, eighteen inches high, which will, of course, project high above the jars. Upon these posts should slide vertically a horizontal bar, to which the battery plates are clamped in a row, in a similar manner to that already detailed in the description of the single cell. This board may be raised or lowered by means of a winch, or in any other way which the ingenuity of the maker may suggest, in order that the plates may be inserted in their respective cells or withdrawn from the same. With a battery of thirty such cells, and with plates of moderate size, I have seen a powerful arc light worked, and the same battery furnished energy—but, of course, not at the same time—to an induction coil which would give a twelve-inch spark. Those who have time on their hands and are fond of experimental work will find much interest in making a battery of this kind with which a number of instructive experiments are possible. It is clean in use, and gives off no fumes, in which respect it differs greatly from some of its congeners.

It may be as well here to point out the difference between a primary battery and a secondary or *storage* battery, for the distinction between the two is not so well understood as it might be. And in order to make this distinction clear, it will be as well to briefly describe two contrivances which have been in experimental use for some years, and which are therefore well known to electricians.

The first to which I will call attention is the instrument



known as the voltameter, by which water can be decomposed into its constituent gases, hydrogen and oxygen. The voltameter in its simplest form consists of two inverted test tubes, which are supported in a cup of acidulated water. Beneath each of these tubes, and connected with a metallic terminal upon the stand of the instrument, is a strip of platinum foil. When these terminals are joined up with a battery cell—three or four cells must be used if rapid action is desired—bubbles of gas arise from each piece of foil, and gradually displace the water in the tubes. One tube is found to fill with gas at double the rate of the other, and the former is found to contain hydrogen and the latter oxygen, thus proving that water is formed of those gases, but in the proportion of two volumes of hydrogen to one of oxygen.

Now it was discovered many years ago that after the apparatus described had been so used, that the platinum electrodes had undergone some change, by which after being disconnected with the battery employed they were able of themselves to furnish for a brief period a current of their own, as if, indeed, they had absorbed some of the electricity from the battery and could again give it up. This discovery led to the construction of Groves gas battery, which practically consisted of a number of voltameters joined to one another, and used in conjunction like so many battery cells. With such a battery powerful effects were obtainable for a short time, but the contrivance was from its brittle and somewhat cumbrous character, merely of experimental importance. It required to be charged by an ordinary battery before it could yield any effects, and it must be noted that the current which it afforded was in the reverse direction to that with which it was charged. This was a true secondary battery, but, as already shown, it yielded results which were only serviceable in pointing out the way to improvement.

In 1860 Gaston Planté undertook a series of experiments with different metals which eventually led to the construction of the battery which bears his name, and which has been in occasional use since that time, as a means of obtaining a powerful current for a short period. By its aid, a surgeon, for instance, can bring a short length of wire to a red heat where it is desirable to use the actual cautery.

In most of the early forms of primary batteries the action known as polarization has presented a great difficulty, and many ingenious plans have been adopted to overcome it. Polarization is caused by bubbles of gas forming upon the battery plates, and so preventing the metallic surface from being in actual contact with the liquid contents of the cell. But in the secondary battery, it is this formation of gas bubbles that originates its peculiar action. When the metal is platinum, as in the voltameter, the plate to which the hydrogen bubbles attach themselves acts towards a clean platinum plate like zinc, or any other metal which is readily oxidised, and towards platinum which has absorbed oxygen, in a still more energetic degree.

Planté found by experiment that the best metal for his purpose was lead, and his battery consists of two long strips of this material rolled together, but separated by flannel. This flannel was replaced at a later period by detached strips of gutta percha, which were found for many reasons more serviceable. A strip of the same metal projected from the outer edge of one of the rolled plates, and from the inner edge of the other outside the containing cell, so as to afford means for connection with the primary or charging battery. The cell, of glass, was filled with dilute sulphuric acid.

The cell as thus constructed is not yet able to furnish a current, but requires that its plates shall be "formed," as it is called. For this purpose the battery is attached to a couple of Bunsen cells, with the result that after several days, during which the current from the Bunsen battery

is reversed in direction several times, the plates assume a spongy condition on their surface, and are then ready for permanent use. This was the first form of Planté battery, but the preparatory charging operation is now much hastened by roughening the surface of the plates by mechanical means, and also by giving them a preliminary bath of dilute nitric acid.

Other secondary batteries have since been devised, the most noticeable advance on Planté's original device being introduced by Faure, who discovered a means of hastening the formation of the lead plates by painting their surface with a mixture of red lead and dilute acid. The spiral form is abandoned and secondary battery cells now usually contain flat leaden plates immersed in their bath of dilute sulphuric acid. They have the fault of being cumbrous and heavy, which render them inconvenient for certain uses. But in order to show that they are efficient it may be pointed out that they are in use for driving electric launches, tramcars, and are commonly employed as a reserve in electric light installations.

As an instance of this latter employment of secondary batteries I may quote a case in which they were successfully used to supplement a dynamo machine. This machine, together with a large number of secondary batteries, was placed in an outhouse in the garden of a mansion near London, which was lighted throughout by electricity. Up to nine o'clock in the evening the machine furnished the current for lighting up the premises, but at that hour the engine stopped working, and without any perceptible break the secondary batteries were called into use for the remainder of the evening, giving up the energy which they had received from the machine during the daylight hours.

## Imagining and Imaging.\*

BY PHILIP H. NEWMAN.

I SUPPOSE it is pretty generally admitted now that photography, within certain well-defined limits, is a legitimate means of artistic expression, and in spite of mutterings and echoes heard from time to time to the contrary, statements that the various scientific processes by which light becomes an image make "only serve to degrade nature," are not seriously maintained in the face of demonstrations that such results, when they occur, are due to the want of ability on the part of the photographer shown in the selection of his subject or the choice of his implements. A further proof of the alliance between fine art and photography is the increasing desire of photographic societies and conventions to leaven the purely scientific with the purely artistic, the materialism of lenses and chemicals with the emotional and the æsthetic. And here I may be permitted perhaps to acknowledge the great compliment that has been paid me in being asked to address you on these latter subjects. I am the more stimulated to do so, however, from feelings of gratitude as an artist for the benefits and assistance photography has conferred upon me. It has been argued that scientific studies and the exercise of optical and mechanical processes are not expected to be found side by side with that divine afflatus which should pervade the artistic nature—in a word, that photographers have no imagination. I can only conceive of this as a jest, and must treat it as such.

It is true, personally, I can only allude to my photographic capacity as of the humblest, although I have succeeded in imaging now and then all I have focussed, yet I am entitled to bear witness to a phenomenon of the dark-room which makes it at once a great school of imagination. I know of no exercise of imagination my mind has undergone equal to that experienced when developing a plate as to how the latent image would turn out; and I will even confess, although I never thought to do so even to my bosom friend, in the dark-room, that my imagination has begun to develop the image when no chemical formula would do it. I need not tell you, who have doubtless in your time undergone

\* Read at the Photographic Convention.



this hallucination, that no hypo would ever fix the picture. But to be serious, we have all of us imagination, and it will grow and bear good fruit if we will allow it, enriching the gardens of our minds, and making pleasant avenues for art to linger in. Our great danger is, undoubtedly, that science and dry fact will tend to dwarf and kill our imagination, especially if, moreover, we encourage that pernicious vice of looking at everything *only* through the camera.

Photography has been working amongst us, as Mr. P. H. Emerson says, "for fifty years for better or for worse," and I am afraid, if I believed in everything or much which he has written, I should have to admit "for worse." I should have to say to you to-day, gentlemen, when Daguerre addressed that meeting of the French Academy on the 19th of August, 1839, and showed it the hitherto fugitive image fixed in a picture of silver, he sounded the death knell of fine art; but I do not believe in all Mr. Emerson has written, and fine art is relieved.

It is not my intention to drag you page by page in a review of the book I allude to—"Naturalistic Photography"—or that portion of it which relates directly to fine art, most of which you have doubtless read; I shall only have occasion to touch upon it here and there. My only reason for mentioning it at all is, that enthusiasm for one branch should be without prejudice to the whole tree. One aspect of fine art does not necessarily cover the entire field, though the solemn and authoritative *dicta* of this book would imply that it did. Nothing that comes within Mr. Emerson's purview that is not naturalistic in art is to be tolerated, and unless you focus the subject, so to speak, with his lens, you must be wrong. As tastes for ever vary without being necessarily bad, this contention is surely inartistic and illiberal.

In a chapter devoted to "Naturalism in Pictorial and Glyptic Art," Mr. Emerson careers through the schools, from Pharaoh in Egypt to Reynolds in Leicester Square, from China to Bouverie Street, from Japan to the Royal Academy; with the touch of a magician's wand, with the stroke of a pen, with a few dozen pages actually sensitised to the true impressions of art at all periods, this book disposes of the whole question. The *cognoscenti* and the *savants*, the art critics of ancient and modern times, have indeed lived in vain; their writings, with little exception, can be shown by the fierce light of naturalism to be so much waste paper, that ought, of course, at the earliest opportunity, and in the eternal fitness of things, to crumble into dust, that dust which has been cast in the eyes of an hitherto misguided world. Mr. Emerson falls into ecstasies, however, over Egyptian lions, and discriminately tolerates some Assyrian ditto. Touching Greek art with a light hand, he points out with satisfaction that Appelles' greatness was due to his imitation of nature, and that previously Apollodorus was the first true painter, but "that the innovations made by him in the relation of foreground and background cannot be compared to the improvements effected by the Brothers Van Eyck in modern times." This is a far cry, and I dare say the Brothers Van Eyck and Apollodorus would be as astonished as we are at the comparison. Mr. Emerson recommends the frieze of the Parthenon to our notice, and lingers awhile among the Romans, admiring particularly the heads of Nero and Commodus in the British Museum; riding his hobby of naturalism at a canter through Pagan times, he pulls up with the horse of Selene, bowing his compliments to the Greeks for the height of their horizon, and whom it is refreshing to find he considers "very advanced."

We then find ourselves with Mr. Emerson loftily surveying early Christian art in a tolerant spirit; but he is very intolerant when art was tied and fettered by priestly domination in mediæval times, and he shall not be blamed, excepting that he does not dwell sufficiently on the protection the Church afforded art, and the loving *naïveté* with which it was inspired. We will not follow him across China and the East, but watch him running amuck against everything and everybody in the Renaissance, who does not fulfil his standard of naturalism. Such men as Dürer get off by the skin of their teeth, and the only artists standing out as worthy of the greatest commendation are the Van Eycks and Holbein. Something, however, has to be said for Andrea del Sarto, but Michael Angelo, Raphael, and Corregio are swept away like chaff before the wind. Benvenuto Cellini, the author of the *Perseus*, is not recognised as a sculptor, but as a goldsmith, and as to Rubens and Vandeyck, etc., the less said the better. Hogarth stands out among the English school of painters with Crome and Gainsborough, and perhaps Constable as an associate; but Reynolds, Turner, Nasmyth, Stanfield, Linnell, and Maclise

go by the board. I will not weary you further, or twice kill the killed; it has been reserved for Mr. Emerson to convert the Temple of Fame into a slaughter-house, and I would rather he held the entire monopoly; but as his book speaks so authoritatively on a subject with which you desire I shall have something to say, it is necessary for me to do something towards clearing the ground, and it shall be my task to show you where I consider are obvious mistakes.

Mr. Emerson's battle cry, or rather his killing cry, is "Nature! nature! nature! go to nature!" Well, I am with him; we are all with him, being sane men; but *what* nature? He says the Greeks went to nature, many sculptors have told him so; truly it needed not that, he might have evolved that from his inner consciousness, if he could not see it. Now, then, *what* nature did they go to? Was it the nature of a labour-stunted physique, a brain-killed body, a factory-degenerated virility? Did they study arms from a sewing-machine girl, legs from a ballet dancer or a cyclist? Where would Mr. Emerson image his legs from to-day, even with the help of all the rectilinear lenses he possesses? Of course, I mean that the legs should be artistic legs, such as a Greek would have modelled. I think we should find Mr. Emerson rather at his wits' end if he had to draw such legs unless he is well grounded in anatomy, or happened by a fluke to be visited by an exceptional model whom he could photograph. The general type of images of legs he could get would not come up to the standard of what Mr. Emerson's imagination would dictate, and I should not be surprised if, after all, we did not find him, having put the camera on one side, assisting his imagination by taking a look at that Elgin frieze we all so much admire; not to copy, oh, no! but just to see how the old fellows did it. Then, if he had to get a whole body, say a *Venus de Milo* without a trace of stays, how then?

But I forget Mr. Emerson cares for none of these things, but would rather have a peasant woman from nature than a Venus, Virgin, or Saint from imagination and cultured idea. Well, there is no accounting for taste; but it is hard he will not permit the freedom in others he takes himself. There are still those equally earnest men in art who prefer the Saint, the Virgin, the Venus of ideal and refined culture to the peasant woman. By the way, I should like to know how Mr. Emerson is affected in relation to this subject by that exquisite remark of Balzac's?—"L'une des gloires de la société c'est d'avoir créé la femme, là où la nature a fait une femelle." Freely translated: "One of the glories of society is that it has created woman, where nature has only made a female." Surely, Mr. Emerson, the ideal is not so hopeless after all, and it is just possible that a great intellectual effort to attain an ideal on a reasonable substratum of nature might be partially successful and not altogether Utopian; at least, even if for argument's sake we demolished the old masters to a man. Mr. Emerson should surely know it is no reproach to photography that though the camera can do much it cannot do impossibilities; the intellectual effort in its use must to a great extent be subject to the model it focusses. You cannot make a silk purse out of sow's ear in photography, much as you may do in that way in painting; but, on the other hand, are you always sure of making the best of the sow's ear as such. Not at all, unless you bring considerable artistic ability to bear upon the treatment of your subject; and when, instead of the sow's ear, you have, say, a very beautiful woman to photograph, the difficulty and the intellectual effort becomes infinitely greater, and you will be glad of some hints from Sir Joshua, to say nothing of Raphael and Rubens, besides Holbein, Titian, Gainsborough, and the favoured few Mr. Emerson tolerates.

That is an ingenious idea of Mr. Emerson's where he compares art with the barometer, rising towards naturalism and falling to the abyss of conventionality; and he tells us that if we map it out we shall find on the apices of the ascending curves the masters of sculpture of the Egyptian and Assyrian Lions, Phidias, Van Eyck (a long jump that), Dürer, Holbein, Da Vinci, Titian, Velasquez, Donatello, Rembrandt, De Hooghe, Corot, Millet, Gainsborough. Now I don't suppose he will in the least mind which of these we examine, so let us take Van Eyck, and see what the celebrated *Arnolfini and his Wife* (Mr. Emerson's favourite picture) will prove for him. Now, please, believe me, I should be unworthy the title of an artist if I did not admire this painting intensely, and it may be granted at once that you need not be an artist at all to admire it, or to realise its extraordinary merits; they are patent at a cursory inspection, also that it was unquestionably painted from nature,



but with Mr. Emerson we will look deeper. I had a tolerable recollection of the picture—as who has not—but I have been to the National Gallery on purpose to study it since reading Mr. Emerson's book, and what did I find? As he says, "It is wonderful in technical perfection, in sentiment, in truthfulness of impression. Note the reflection of the orange in the mirror, with what skill it is painted; in fact, the whole is full of life and beauty, the beauty of naturalism. It is a masterpiece good for all time, and yet it is but the portraits of a merchant and his wife. No religious subject here inspired John Van Eyck, but a merchant family, yet in many ways the picture remains and will remain unsurpassed." Quite so. But there is something more, something that is as apparent to the student as its naturalism, or any of the qualities we have enumerated, something that needs no searching analysis, something anyone may see, something John Van Eyck would have been the first to admit, but which Mr. Emerson has not referred to.

This something, what is it? It is conventionality, style, and without which this picture would not, in an artist's opinion, be the magnificent work of art it is. The folds of the drapery in the wife's robes denote careful arrangement and conventional treatment and drawing, indicative of the style of the period; that due ordination and sub-ordination of parts of magisterial line and breadth of effect discoverable in this school, and manifest in this and other important works of the accomplished master. Undoubtedly this, as in many works of the period in the Low Countries, is wonderful to have been done without the aid of photography, and it would well serve Mr. Emerson, or any one else, as a text to enlarge upon, as to how photography can be made useful to painters; but he has only chosen to use this illustration to show how Van Eyck went direct to nature for his models; but this needs no insistence. Raphael, and many other painters whom Mr. Emerson abuses, did precisely the same thing, and conventionalised no more than Van Eyck has done (for *pace* Mr. Emerson). I must maintain the picture is brimming with conventionality and style, a style that was carried on among the Flemings to Holbein's time, and is conspicuous happily in his best work. But why does this painting at the end of the middle age period attract our author's notice so much? Is it because he thinks that it at all shows what might be obtained if photography could ever be done in colours? If such is his idea, let me tell him at once that he would be dreadfully disappointed, for he would miss that added charm of individuality, without which no work, pictorial or glyptic, appeals to us or retains our sympathy; that charm that comes of art which is based on a study of nature, but which is a totally different charm to that of *nature*, excepting now and again in her rarest moods, or where man has meddled with, but not marred her.

But if a man photographs a field or sea, and paints up to his transferred outline from colour memoranda, and many studies, and never so well, Mr. Emerson is horrified at what he calls a counterfeit, howbeit landscape and sea painting based upon such counterfeiting has reached a higher standard of excellence—as mere painting—than at any time in the world's history.

Then what about imagining and imaging? Where may the two combine, and where, from the camera point of view, must they be friends apart? Mr. Emerson has cut the Gordian knot, but he has not solved the difficulty; he ridicules an ideal, excepting what may come of itself out of nature, so the art difficulty, as far as he is concerned, remains precisely where it was. The fact is, each of us must solve the difficulty for himself, and in his own way. If he be a genius, he will have little trouble; if he is not, he will save himself many plates, much chemicals, and more disappointment if he looks up some of the authorities our author affects to despise; and whether the photographer be a genius or not, it will be just as well for him to see where others have succeeded and where failed. Amongst these he will, of course, come across Rejlander, and will see that he kept imaging and imagining together to a very wonderful extent indeed, and he only failed because of his models. If he could have obtained some of the models Phidias and Apelles could get, the history of photography would have been as great in aesthetics as it is in science. Photography is not to blame for this, she must be content with the models she can get, and do the best she can with them; and very much she can do, if the artistic faculty is cultivated (if not native) by a searching study of the old masters of form, sentiment, and composition, and especially if the photographers will abstain from short-focus lenses, and can be per-

sueded to burn all their small stops. Bad photography has a great deal to answer for in the multiplication of copies of inferior work, leading our attention to detail rather than to breadth and simplicity, which should be the characteristic of all art, pictorial or glyptic. False notions of taste must of necessity be encouraged by such multiplication, especially in those less cultivated minds which look upon every photograph as a picture. This alone should stimulate every photographer to strive for the best from an art point of view.

The matter of detail has affected the arts of design and picture painting alike, and very importantly; its influence is discernible in every exhibition, and is distinctly a bad one in the true interests of art. I am glad to think that my views coincide with Mr. Emerson's on detail in art work, and agree with him as to its limitations to that which is fundamentally necessary. I have alluded to this question of detail in another lecture,\* but I feel its import so greatly as to dwell upon it with renewed emphasis here.

The tendency of artists to paint bits, and amateurs to purchase them, was never so great as in the present day. Nothing could be said against it were these bits looked upon (as they should be) as merely a means to some great and legitimate artistic end, but when one is deafened by the parrot cry of "Nature, nature, nature!" one is apt to lose patience and ask, Why is this aimless sort of thing going on? this painting of elaborate passages in nature with subtle reflections and interminable detail that tell us nothing but that in competition with the camera man's eye and brain are inferior instruments, if the product is to be looked at as the true end of fine art. Well, I do not believe it is, or ever will be. We are passing through phases of change; if the camera has stimulated some of our younger painters to study nature lovingly and searchingly, they must look upon it as a means to an end; and while they may be congratulated on escaping the far more dangerous Charybdis of a tricky impression—as demoralising as it is false—they must avoid the Scylla of sacrificing breath to detail. The image should on no account content them unless it bodies forth their highest thoughts and aspirations and most poetical ideas.

People talk of realism and idealism, impressionism and naturalism, fashionable verbiage that only conjures up the ghosts of things in art; they seem quite to forget, or to ignore, that these *isms* are but the robes of art, the fanciful draperies with which the goddess coquettes with all but her true votaries, or illusory fires with which, like a will-o'-the-wisp, she leads a purblind and bungling *dilletanteism* into the bogland of cant and empty phrases. No! art is not got on easy terms, she is ever a coy goddess; but when you can unveil her of these *isms*, and you are really face to face, you will find her the same to-day as she was far back across the dim centuries to your predecessors—fair, modest, truthful, with wide, honest eyes, searching the hearts of man, sounding the intellectual depths of struggling human nature, telling truths calmly, piously, earnestly, affording her true worshippers most gracious and pleasant consolation, and ennobling them for ever. I warn you that art that does not do all this is not true art, but one of those weird lights that will drown your soul in a quagmire.

Mr. Emerson is exceedingly bitter on the religious side of art. We, of course, must all regret as much as he that priestcraft at many periods did put it in fetters, but without being fanatical it is possible and just to be grateful to the religions of the world—heathen or Christian—for creating and preserving to us the monuments that exist. It may be weakness, but I but I am none the less proud of it, that when I stand before the cathedrals of this country or northern France I am thankful to be alive to see them, and to know that the Bishop builders have formulated for me a prayer in stone. Am I, are you, to put these things by as toys of a puerile age, and say, all sentiment, my dear sir? Art teaches us better now; the Bishop builders were all very well in their way, but the French Revolution, plus the Zolaciples gives us a truer gospel, don't cher know; you'll see it through the camera if you'll only stick to nature. I often wonder if men who practically say or think this sort of thing know anything about art at all; they certainly don't expect art to say anything to them or teach them anything. One says to you, I don't want the story at second-hand, I know the page of Lemprière the artist got it from, and so, forsooth, because he has not invented a

\* See *Photographic News*, March 7th, 1890.



legend he is not to paint it; because he has never seen a hero he is not to imagine one, and give pleasure and instruction to a less imaginative brother by a picture for fear the brother should ask, "Are you sure it all happened just so?" or say, "Of course you photographed the hero, dear boy."

Fancy a painter being commissioned for a picture or fresco of *Prudence* for the adornment of a town hall or law courts, and being prohibited from using the admirable and instructive subject of *Ulysses and the Syrens* because the painter—let him be able to paint ever so poetically—did not invent the story, and could not get a photograph of the Syrens. Again, and for similar reasons, I am not to buy a *Perseus and Andromeda* to hang upon my walls, do I want a lesson in chivalry never so much. Some of the rising painters have laid these teachings somewhat to heart, and to their cost, for instead of boldly taxing their imagination they have tried to make a compromise between nature and art. A most ludicrous instance of this is present to my mind, where the subject painted was this very *Perseus and Andromeda* naturalistically treated; the figures were fairly painted, as paintings, and undoubtedly extremely like the models, but these, of course, were of such a poor and unheroic type as to suggest that they had by some means been deserted by their bathing machines. The monster was too flabby to describe. Another *Andromeda* occurs to me; here the painter had exercised all the imagination he was capable of, and had used his model so judiciously as to obtain a fine figure, yet his mistake was as grave as in the former case. This *Andromeda* seemed, excepting for her silver handcuffs and chain, to be sunning herself after the bath, while the emerald waves and purple islets suggested a strand where monsters never came, and chivalry was scarcely needed. The poetical insight wanting in these instances might serve to support Mr. Emerson's argument against painting such subjects did we not know that it has been painted worthily more than once in our own time; and, above all, remember that while painters are many, artists are, and ever will be, few.

There never was so much good painting as there is now; the present Royal Academy Exhibition is full of most admirable work; the *technique* gets higher and higher annually. But now go and ask the general public what they think of this exhibition; the answer is, "The dullest we remember." The general public are not artists, but as usual they are very keen critics, and can generally tell when they see a good thing without the inspiration even of a newspaper. I walked through the rooms of the Academy the other day with a highly cultured girl—no painter, but knowing our National Gallery and some of the galleries of Europe, who could trace the influence of Veronese and Rubens in Makart and Velasquez in Munkacsy, and could tell a Fortuny as well as she could tell a line of Shakespeare, or a bar of Beethoven.

"Well, my dear, how do you like the exhibition?"

"Not at all; there is only one picture I would buy: I should like that."

It was a single figure, full of repose, and worthy of Greek art; the nature in it, like that art, had filtered through the passion of the painter. Here, at least, there was imagining as well as imaging.

Mr. Emerson has written other books besides the one I have been talking about, and published many photographs from original negatives. It would not be fair to him, having said so much, if we did not say something about these, and it is only fair to see how his wholesale repudiation of book teaching in art, and his leaning entirely on nature, has helped him. In one of the books devoted to the Norfolk Broads, Mr. T. F. Goodall is a collaborator, and writes, in an article on landscape: "The roughest sketch, in which the ground and the objects against the sky are painted in a mass in right relation to it, is really more finished than the most laboured work wherein the essential truth is wanting." This may be granted at once, but then one looks to see it illustrated by the accompanying photographs. Unhappily for Mr. Emerson and Mr. Goodall, photography seldom gives objects against the sky in right relation to it; certainly examples are sadly wanting in the book in question: this may be the fault of the copy, or processes of printing may have improved since. Let us pass on to another book, and look into the *Idylls of the Norfolk Broads*, plate 6: *Bathers*. Here we have no question of printing but of single composition. The backs of two bathers rise out of the water side by side, one a little in advance of the other, however; the nearer one spreads his arms a little to lead up the angle of the bank and take away from the verticalness of the arrangement, the other bather keeps his arms down, one being

partially hidden by his body. Now all artists will admit that the human back is a beautiful object, delightful to draw and model, in its leading lines and subtle undulations, and Mr. Emerson missed a great opportunity here of showing himself both a photographer and an artist; anything more commonplace and less idyllic than the arrangement of these two backs it is difficult to conceive. I refrain from making fun, any one may do that where they cannot make sense; but one leaves the picture with a sort of suspicion that Mr. Emerson is making fun of us. We should like to ask him if the idyllism of the picture is supposed to lie in the backs, or in the background. I cannot determine; neither smudginess nor backs like these are idyllic to me. Plate 9, in the same collection, represents something going on with a hay waggon, which at first sight seems to be part of a tree; on the right-hand side of the picture a man is leading the horse towards us, and this emphasises the right angle made by the side of the waggon and the ground cut clean against the sky; a little bunchy tree is near the horse and towards the horizon, while another man is near another small tree on the opposite side of the picture, and serves only to enforce the emphasis of the right angle already mentioned. I can only suppose that this arrangement is done in wilful defiance of any rules of composition whatever, and pass on to *Pictures in Field and Fen*. "Ah!" you say, "how charming Mr. Emerson can be when he chooses." This "spring idyll," for instance, a girl peeling potatoes; note the turn of the girl's head in relation to the line of the shoulder, and its continuity in the branch of the tree—the very pail is ordered in its arrangement with the rest of the picture. But is this accident or design? It would be pleasant to give Mr. Emerson credit for this and several other pictures—*Ploughing* and the *Stickle-back Catcher* are excellent. But what are we to say when we find them, in company with such wooden compositions as the *Dame's School* (which might have been so easily corrected, by the way), the atrocious *Winter's Morning* (look at the vaunted values here), and the hideous *Going to Market*? Well, there is nothing to be said but that if art is to be got by simply going to nature, Mr. Emerson does not show us enough of the way; at least, in the works I have referred to. Is there no sunshine ever in the fen country that most of these photographs have such leaden skies? or does our author belong to a school that enunciates the dogma that sunshine is unpaintable and brilliancy vulgar? if so, Fortuny, and some of the work of the greatest living painters, might teach him better. This last book I mention, *Pictures in Field and Fen*, is prefaced, so to speak, with these lines from Browning:—

"So British public, who may like me yet  
(Marry and Amen), learn one lesson hence  
Of many which whatever lives should teach:  
This lesson, that our human speech is naught,  
Our human testimony false, our fame  
And human estimation words and wind.  
Why take the artistic way to prove so much?  
Because it is the glory and the good of art,  
That art remains the one way possible  
Of speaking truths, to mouths like mine at least."

A more unfitting quotation to head such a book as this was never seen, save that it is capable of a double application, rich in its condemnation of the author. If Mr. Emerson had as much reverence for art as he pretends to for nature, we had been spared many of these so-called pictures, because many of them were not worth the taking. Many he would have rearranged, and could have done so quite easily. One slight reference to the "Soldiers Bathing in the Arno," might have corrected those woeful backs; and many of the landscapists he has slighted would have saved him from the stumbles he has had elsewhere. I trust, for the sake of photographers, that his advice on technical matters is more reliable than his artistic guidance. As to his hints on art, I cordially agree with the man who called them "Tupperisms." His pictures, at least as printed in his folios, do not bear out his standard of excellence or teaching. Let us dismiss this discipline of nature as quickly now as he has affected to dismiss time-honoured names in art, and let him know and bear in mind that while in characterising a learned reverend, if oft enthusiastic criticism, as "splendidly false," his own has too often the latter quality, but never the former. I unhesitatingly say that he has written on art without adequate knowledge and reflection, as he has frequently imaged nature without refined taste or imagination.

There has been much discussion lately on the subject of beauty; it may be difficult to exactly define it, or how much of it is necessary in the constitution of a work of art; it is too wide a question to more than mention now. It may be worth saying,



however, that beauty lies more in order and consistency than is often allowed, and works that do not possess these qualifications proportionately fail to charm us. Beauty, moreover, is an individual perception, more or less, but it is distinctly capable of wider appreciation, the more apparent is the consistency and order I allude to. Thus, in a picture or photograph of a group of figures there must be a principal figure or a principal group, and it is essential for our satisfaction that that principal figure should be principal in every respect—force of light and shade, mass, etc. If there is a story to be told it gains immensely in directness by such means. These things are exceedingly difficult to talk about, but beauty in composition is so dependent upon them that they must not be passed over. I am the more sensible of this because of some recent terrible examples of photography that have come before me, where there were several women in white aprons; and some that were smaller in size and more in the background were as white as that which should have been principal. Perhaps I am rather urgent on this point of ordination and sub-ordination. I fail, however, to see good composition without it; it is my *ism* or idiosyncrasy. One artist of our own time is accused of this shortcoming and one is accused of that. One artist of the greatest poetical insight and refinement, a very Achilles equally in his retirement as when he is moved to put out his strength, is accused of soft, waxy texture. The public and the critics seem quite oblivious of the fact that his aim is not to imitate nature in his textures so much as to move us with his design. It would be heart-breaking to think of the future of art in this country were it not that one knows the tide of fadisms is at its flood, and while it rushes on, the poet painters who see art, and beauty, and consistency, are as firm as the rock they rest upon, until the tide has turned and when their voices will again be listened to. The young men who have any real art feeling in them will have made their studies from nature, and will have been as dissatisfied with them as were their great predecessors with theirs. It may be that the foundations laid will be the more solid from the long continuance of the realistic and naturalistic craze, so good coming out of evil; for certainty of draughtmanship and knowledge of light and colour will be at the facile command of those who, ceasing to make unsatisfactory images, will develop their imagination and give us works of art. We will at least hope so.

But you ask, What has all this to do with the Photographic Convention of Great Britain? Much, everything, because it is to you that art looks in the present day to be in the van of this desirable movement; to you who, having many sins of omission and commission to answer for in the past, whereby you have in a great measure been responsible for this unstudied naturalism which is sapping the foundation of the finest taste; you, by your multiplying processes and waistcoat-pocket cameras, who have been tempted to photograph everything you have seen—good, bad, and indifferent. I am speaking plainly but generally (of course, there are grand exceptions). It is to you I say—artists, photographers, and photographic artists—in the cause of art I appeal; you have a great future before you if you will only exercise a dignified reserve that a dignified profession demands, and never photograph anything, under any circumstances, that shall not, when it is printed, be a joy because of its beauty.

I am certain that in the present all who have the real interests of art in England at heart will uphold me in this appeal, as I am equally persuaded that Rejlander and the greatest names in the past, and those who are yet in the future, will approve of your doing your utmost with these high aims in view. Pray believe me, I am not ignoring much, very much, good work that has been done, and I know is being done. I should like to mention names, but must not do so for fear of invidious comparison. If I have been unjust in anything I have said, it has not been with intention, and I beg forgiveness. The book I have so often alluded to was put into my hands for the first time just as I was asked to write this paper, that I might have some knowledge of some of the things that had been said on the art side of photography. I was amazed when I had read the book at its audacity, and more amazed when I heard that its teachings were gaining ground. I was told that photographers, however, would be glad to be spoken to on the art question, notwithstanding. I have spoken to the best of my power and belief. If I have spoken loudly, I may be pardoned for art's sake at finding its temple shattered and its god dispersed, that Mr. Whistler or Mr. Anybody else should occupy the site. Not a word against Mr. Whistler, who has shown himself often and often a great artist. All I contend for is, that

"Naturalism" is not the only nor the highest art in the land. Let us, indeed, be termed Philistines and rejoice in the honour thereby conferred on us; the rather keeping to our own gods than falling down and worshipping stocks, and stones, and nature; unanimated by the divine gift, the soul of man has the privilege of conjuring up and investing it with. I would rather go back a hundred years and more, I say it seriously; it would be better for art, better, far better for us all, to go back to the sickly sentimentality and bathos of the last century, that culminated in the lachrymatory effusion of Uncle Toby's recording angel, or, more practically, to the primary artistic principles of our great grandmother's samplers, than reach the logical bourn of naturalism where imagination dies in imaging, and over whose portals might well be written, "Abandon hope, all ye who enter here."



## HOW TO MAKE A PERFECTLY LIGHT-TIGHT WHOLE-PLATE CHANGING BAG.

BY MISS ELLEN BOYER BROWN.

THREE yards red Turkey twill, three yards black cotton sateen, one yard inch-wide black elastic, four yards black cotton inch-wide tape. Tear off one yard of each material for sleeves. Fold the other two yards together into a pillowcase-shaped bag; red inside, black outside. The top of the bag is to be something like a tradesman's apron; a straight piece across the chest with an elastic band to go round the neck, and the corners cut a way about twelve inches down the sides of bag.

The material for the sleeves must be folded together, half-yard for each. The actual width of the sleeves need not be more than enough to pass your camera slide easily through them. The top of the sleeve is sewn into the side of the bag. The wrist of the sleeve is hemmed. Into one hem run broad elastic tight enough to fit your arm just below your elbow. The other wrist is left open to pass the slide through, but an elastic strap must be made to confine the sleeve closely below the other elbow, but over the sleeve itself.

The black tape is for strongly binding the edges of the bag, and this *must not be done with the sewing machine, but by hand*. I spoilt several plates by light coming in through the perforations of the machine needle. The sleeves need not have their seams bound, but they must have a *double seam*, and when they are put into the bag they must be bound inside with Turkey twill or black sateen.

I have found it most convenient to have a piece of board a little shorter than the bottom of my bag, and six inches wide. This can be put in through the open wrists when the bag is finished. It makes a firm bottom to push against, keep empty boxes on, etc. You will find that this bag suspended round your neck makes a splendid changing bag. It may be that a yard will prove too long for every one, but of course it can be made shorter. Be very careful to close all boxes before moving your loose strap, and directly your arm is out replace the strap on the sleeve. I have tested my bag in all lights with extra rapid plates for four years, and found it perfect. Do not buy very cheap material.

It is well for beginners to put a little piece of stamp paper on the corner of their plates in their own dark-room before starting, as at first you will not perhaps feel the difference between the plain and sensitised sides without some such guide.



WEST SURREY AM: PHOT: SOC:—The ordinary monthly meeting was held on the 3rd inst. The subject was "Artistic Focussing," by Mr. G. H. James, who treated his work in an able manner, and was congratulated by Mr. Davidson; Mr. Winsford, however, was not at all favourably impressed with the lecturer's teaching, and expressed his views accordingly. New books were presented to the library, and it was decided to open a sale and exchange book for the use of the Society. Mr. Swingle promised to give the next subject, but, on a showing of hands, it was found that most of the members would be away during the month of August, and the indoor meetings were accordingly adjourned until September. Mr. Watkinson, who is about to leave for Swanage, tendered his resignation as Secretary, and was warmly thanked for his help in the formation of the Society and his services to the present time. Mr. G. H. James was elected to fill the vacancy. Mr. Berry is kindly requested to send his address to the Secretary.



## Science Notes.

In the June number of the *Sidereal Messenger*, Professor Pickering describes fourteen photographs of the planet Mars taken by Mr. Wilson. These all show distinct and identifiable spots and markings, and those taken on different days show a variation in the size of the white spot (doubtless a mass of snow and ice) which is seen surrounding the south pole of the planet.

The solar eclipse of June 17th was well observed at several Continental observatories. At Cane M. Janssen successfully photographed the spectrum of the ring of light (it was an annular eclipse) left uncovered by the moon, and it is thought that these photographs will enable the vexed question as to the existence of oxygen in the solar atmosphere to be settled.

At the meeting of the Zoological Society on June 17th, Mr. Sclater exhibited a large photograph of Grevy's zebra (*Equus Grevyi*), taken from the specimen in the Natural History Museum at Paris by Mr. Gambier Bolton.

M. Guntz read a paper on June 23rd, before the Academy of Sciences, at Paris, on the sub-fluoride of silver. The existence of a sub-fluoride of silver was indicated by the analysis of a precipitate produced on the negative pole when subjecting a hot, saturated solution of silver fluoride to electrolysis, employing a very strong current and silver electrodes. The pure salt is obtained in abundance by heating finely-divided silver with a saturated solution of silver fluoride on a bath to a temperature of from 50 degs. to 90 degs. C. Analyses of the product prove it to be the sub-fluoride of silver Ag<sub>2</sub>F. To photographers this is of special interest, as showing the probability of the existence of similar sub-salts of silver bromide, etc.

*Punch* for June 28th contains a capital skit on the automatic machine. It is entitled "Trying position of an Elderly Gentleman." He determines to try the automatic photographing machine, the station being nearly empty. To his dismay a crowd has gathered, and watches the operation. This would make a capital lantern-slide, but be it remembered that "Mr. Punch" is very strict in enforcing his copyright.

Everyone has seen "the old moon in the young moon's arms," the dark part of the moon being made visible by light reflected from the earth. Mr. Barnard, of the Lick Observatory, has succeeded in photographing this dark part with a twelve-inch telescope, using a Seed plate (sensitometer 26), and giving from 40 to 70 seconds' exposure. The moon's age was nearly three days, and many details in the dark portion are visible.

Alexander Parkes, one of the most prolific inventors of the present century, died on June 29th. He was born at Birmingham in 1814, and his first important work was the perfection of the electro-plating process; he being at that time in the employ of Messrs. Elkington. In 1855 Parkes commenced experimenting with collodion, a substance then of but recent introduction. He found that, by adding to the collodion a certain amount of castor or cotton-seed oil, a plastic substance was obtained which could be hardened by heat, and with which other substances and colours could be mixed so as to cause it to resemble amber, coral, ivory, tortoiseshell, etc. The new material was at first known as *Parkesine*, but was afterwards called xylonite and celluloid. It was made into combs, knife-handles, buttons, brush-backs, and an infinity of fancy articles, and attracted much notice at the Exhibition of 1862. Parkes made experiments with a view of applying celluloid in lieu of glass in photography, and had partially succeeded, when his attention was called off by other matters. The writer of an excellent notice of Parkes, in the *Birmingham Weekly Post* for July 5th, says, speaking of celluloid, "Although the invention was an English one, the manufacture, under the title of celluloid, has passed principally into American hands." I notice, in last week's *AMATEUR PHOTOGRAPHER*, that Mr. Guiterman finds fault with me for speaking of the Eastman rollable film as "celluloid." Surely he does not think that the decision of an American judge is binding in England? And if an English court of law could be found to give a like decision, it would only be binding upon the producers of the article, and not on those who (like myself) write about it. It does not appear to me to be of the slightest importance whether the new Eastman film is called "celluloid" or not (except that it is a great compliment to "celluloid" that such a beautiful and perfect material should bear its name), but I consider that, scientifically speaking, the two things are identical. I trust that the American Celluloid Co. will erect a monument to Parkes.

F. G. S.

## Our Contemporaries at Home and Abroad.

The *American Journal of Photography*, speaking of "Home Portraiture," says, "The great point, however, in amateur portraiture is the illumination. . . . Place the camera close to the middle window, leaving only room enough to get behind it, and close the lower shutters behind the camera, leaving the upper ones above it partly open to secure a slight front illumination. Upon one side the shutters of the bay window should be opened entirely, so that the most brilliant light falls upon the sitter from that direction, and then by regulating the amount of opening upon the other side the shadows may be softened to any desired extent. At first the effect should be examined upon the focussing screen of the camera, which should be of the finest ground glass obtainable. Use the full opening of the lens, and focus upon the eyes of the model, and the definition of the rest will take care of itself. A microscopic sharpness, by which every thread in the garments may be counted, is readily obtained by using a smaller aperture; but such precision is not wanted. Never mind about head-rests or their substitutes, but try to place the sitter in such an easy and comfortable position that such supports will not be needed." Articles: "Zoological Studies," "Silver Printing," "Fixing Plates," "Amateur Experiences," "A New Flashlight," "A Photographic Contrast," "A New Social Fancy," etc.

The *Photographic Art Journal*, in an article on "Sky in Relation to Landscape," says, "The tyro, as well as the unthinking multitude, is painfully imbued with the idea that the country is only beautiful in 'fine weather,' whilst, with proper discernment, the most uninteresting flat and poorest bit of country may become a perfect picture and full of poetry when seen under the influence of certain cloud effects and the telling delivery of broad light and shade, so that if the photographer, instead of journeying far and wide seeking beautiful scenery, would be content to look around him and take such as comes close to hand, only waiting suitable opportunity when clouds enshroud it, we should probably get more real pictures on our exhibition walls." The number contains two excellent process block reproductions of photographs taken in South Devon, and articles on, "Photography on Copper Plates," "A New Departure in Silver Printing," "Short-Focus and Wide-Angle Lenses," "Photo-Etching Made Easy," "Animal Photography," etc.

In the *Photographic Times*, C. L. Lochman, speaking of "Photographing Flowers," says, "I commenced making pictures of medicinal plants nearly fifteen years ago, and for the most part made use of the wet collodion process. The negative from which the reproduction in this number of the *Times* was made is by the wet collodion process. I made use of a collodion that contained rather a large proportion of bromide or iodide of cadmium. I found the cadmium salts more sensitive to the less refrangible colours of the spectrum than salts of soda or potassa, but still I always added some of the latter to my collodion. It is necessary, also, to expose the plate a sufficient time to bring out the details in the leaves of a plant. I found some gelatine plates that answered fairly well, and, no doubt, some orthochromatic plates could be employed to advantage. It is necessary to keep a plant perfectly fresh, so that it does not droop during exposure. In fact, some plants are so sensitive that you cannot remove them from the soil, and they must be photographed *in situ*. Articles: "Platinotype Printing," "Guaiacol as a developer for Dry Plates," "Origins and Progresses of Photo-Engraving," "Ethics of Photography and Photographs," "An Early Camera," "Photographs of Waterspouts," etc.

The *Art Journal* for July is a most excellent number, and the frontispiece is a charming photogravure of "The Call to Arms," by E. Blair Leighton. There is an illustrated article on "W. B. Richmond's Work, and His Life as an Artist," another on "Alpine Scenery," one on the "Royal Academy in the Last Century," "Church Furnishing and Decoration," "The Summer Excursions at Home and Abroad," etc.

CORRECTION.—Mr. W. A. Watts writes us that in his answer to query 3,895, in the last line but one, the word "quicker" should have been "longer."



## Holiday Resorts and Photographic Haunts.

### TRURO AND NEIGHBOURHOOD.

By E. M. HAMILTON.

TRURO, which contends with Bodmin for the title of county-town of Cornwall, is about fifty miles from Plymouth on the Great Western line of railway. Although it is not the assize-town, yet it claims an importance because the County Council meets there, and because there is the centre of the recently-revived diocese of Cornwall, with its beautiful though uncompleted cathedral. As Cornwall is visited by larger numbers of tourists every year, a few words from an amateur photographer about the work to be found there for the camera may be useful. Of course, the whole of Cornwall furnishes material for many beautiful pictures, but I should like to take now just the locality of Truro, as this town is a suitable starting-point even for a widely-extended tour. There is little of interest in the town itself except its cathedral, which, though as yet only the choir, transepts, and two bays of the nave are finished, is of wonderful beauty, especially inside. Permission to photograph the interior may be obtained from the Precentor; it is difficult to get a picture of the whole of the exterior, perhaps the best position for this purpose being St. Mary's Street. Now a word about the River Fal, which is, in reality, a long creek of the sea, the mouth of which forms the magnificent harbour of Falmouth. Steamers ply daily between Truro and Falmouth, but it well repays the photographer to make the journey in a boat, as the river abounds in "bits" through its whole length, and has often been said to surpass the Dart by people who know both rivers well.

A very good morning walk, taking the immediate vicinity of Truro, is to go along the river to Malpas, about two miles, where the road ends in a ferry; the river looks very fine from here. Then take the footpath through the fields to St. Clement's, where we again come upon a branch of the river. Here, outside the Vicar's gate into the churchyard, is one of the old Cornish crosses which interest antiquarians so much. Walking from here along the side of the water, we come out finally on to the London road, and we may either turn to our right, if we want more pictures, or to the left, which brings us back again into Truro. Again, we shall get some good negatives if we start from the Post Office up Pydar Street, and then, turning to the right, pass Lake's Mills and enter on the path under the viaduct. When we get to Idlass Sawmills (which make a fine picture, by the way), we can complete the circuit round to Truro again, or go on through Idlass; in my opinion it is worth while going on. All the scenery I have referred to so far is what I call peaceful scenery, if that expression conveys anything to my readers. I mean to say, wooded hillsides and valleys, streams and cottages. But those who desire a variety of landscape (and who does not?) may find it close at hand, for the north coast is only about eight miles distant. Brakes run to Perran Porth, which is the nearest point on that coast, two or three times a week; but there is no railway communication. As we rise out of the valleys towards the sea the character of the country changes, and we see more heath and gorse; there are few trees, and those mostly hardy firs. The beach at Perran is very fine and several miles in length, and behind it stretch miles of grass-grown sand-hills, among which were discovered the remains of the old church of St. Piran, which had for centuries been buried beneath the sand, and which, by men of considerable authority on such matters, is said to have belonged to the ancient British Church which existed in our country before the Conquest by the Saxons. If we walk from here along the cliffs in the direction of St. Agnes, we shall find the scenery grand, with its stony tract of heather and furze edging the coast-line, and the surf breaking on the rocks hundreds of feet below. About half-way between Perran and St. Agnes the cliffs are most curiously broken and fretted, from the action of the weather, combined with mining operations, and it is altogether perhaps as fine a piece of scenery as one would find anywhere along the coast. The cliffs here face about north-west, so that, to get the sun on them, they should be taken in the afternoon. Near the ruins of an old mine, on what is called Cligger Head, not quite half-way between Perran and St. Agnes, there is a descent to the sea, used by miners in old days, and which affords some excellent opportunities for photograph-

ing, though the apparatus is certainly rather in the way in climbing down. The boring at the foot of the cliff is known as the Gumpus adit. If we go on as far as St. Agnes we shall have to walk about four miles to the nearest railway station (Chace-water), or eight and a half miles back to Truro; there are conveyances to be had here, however. Of course, every visitor goes, or should go, to the Lizard before leaving Cornwall; and this may be done from Truro, either by hiring a private vehicle or taking the train to Helston, where brakes leave for the Lizard, I believe, every day during the summer. There will be some good work to be got here for the camera, especially around Kynance Cove. It is of a rather different character to the north coast; though it is still bold cliff scenery, it does not give the visitor the idea of bleakness and storminess as much as the other. On the whole, Cornwall seems to me to exhibit a wonderful variety of subjects for the camera, and Truro seems as good a centre as any to work from, so I think photographers will find it worth a visit.

## Exhibitions.

### PRIZE PHOTOGRAPHS OF THE AMATEUR PHOTOGRAPHIC ASSOCIATION.

WE have been privileged to inspect the photographs sent in for competition for the prizes offered by the Council of the Association. As a whole the photographs are of a very high standard of excellence, and the fact that they are all mounted on an uniform size of card, in our opinion improves their appearance and assists materially the work of those called upon to judge. A list of the awards is given under "Societies' Meetings."

Mr. R. O. Milne sends "A Breezy Day on the Solent," a picture showing motion, the moment of taking well chosen, and the whole picture admirably set. "Sunshine, a Rain Effect on the Solent," is typical of yachting life, and will bring back many memories to yachting men. It would have been better had it been possible to have kept off the plate the yacht in left-hand corner.

Mr. F. S. Schwabe exhibits some excellent work. "A Quiet Nook in Shanklin Chine," a wonderful lighting of a very difficult subject; the foliage is rendered clearly, and with a sparkle rarely found in a photograph. [Another, an "Interior of Oriental Palace," shows the most exquisite detail. An "Oriental Garden" is another admirable picture, the definition in the foliage is well brought out. In another photograph we have a most skilful grouping of palms and ferns with the foliage even more distinctly rendered. A scene by a lake side with boat-house and bungalow in the distance is well selected.

Mr. W. Vanner sends eight breaking wave studies and sea-scapes which are very fine.

Mr. R. Murray contributes views of bold, rocky scenery, rime and hoar frost studies, and a good view of Whitby Abbey.

Mr. F. Griffiths' special work is mountain scenery, and in them all shows great care in selection of point of view.

The Vicomte de Codeixa sends in an exceedingly fine photograph of the Paris Exhibition, and a clear and crisp photograph of a rushing torrent, with rich, bright, and overhanging foliage well rendered. A camera which has, we note, been left on the banks appears to be very out of place in such a sylvan scene.

Mr. W. S. Hobson's "Studies of Fishermen" are among the best we have ever seen. The detail in the distance is carefully subdued, and the figures stand out with almost stereoscopic effect. They are none of them forced, but all the figures making up the pictures are naturally posed.

Dr. Drew (Alexandria) has sent in some bold studies of Kaffir women, with all their household goods on their heads. The women are carefully grouped and make good pictures, as also do two portraits of Red Blanket or raw Kaffirs.

Mr. W. Gaddum as usual devotes himself to yachting pictures, which are very carefully selected.

Miss J. Wilson sends an admirable study of three donkeys and a gipsy encampment. She also contributes a most marvellous photograph of a flight of birds, the best we have ever seen.

Miss Mahon's "Farmers' Carts" and other farm scenes are very good. A sportsman with gun and dogs, lady at doorway, and man with wheelbarrow, are really exceptionally good studies.

Mr. J. C. Cohen's "Boat Leaving the Pier" is a good picture; the breaking of the waves is sharp and bright.



Mr. H. O. Hutchinson sends a good view of Clovelly, well composed, and carefully selected to fill the plate.

Mr. F. Wrigley's study of breaking-wave, Anglesea, and several seascapes are good; so is the picture, "Paddling in the Sea."

The Rev. G. Perram sends some well executed micro-photographs; the prize is awarded him for "The Tongue of a Cricket."

Mr. F. S. Smart has several good photographs; the best is certainly "The Falls of the Tummell," which has great life and atmosphere about it. "Forth Bridge" is a good picture taken a little too much end on. Another good print is "St. Ives' Harbour."

General Kaye contributes photographs, showing great care in selection.

M. de Déchy's pictures taken in the Caucasus are exceptionally fine. We have had several opportunities of seeing this gentleman's work, and are quite satisfied that he will take a very high place as a worker in photography.

Mr. R. Leventhorpe sends some very charming landscapes, all of which are well balanced and carefully selected.

We have briefly referred to these pictures to satisfy our readers that the Amateur Photographic Association, established in 1861, under the presidency of H.R.H. the Prince of Wales, is a real, live, and active society doing good work in a quiet, unobtrusive manner; the members of Council all take an active interest in the advances being made in photography, and are kept well posted by Mr. A. J. Melhuish, their courteous Secretary.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. The PHOTOGRAPHIC SOCIETIES' REPORTER was established to report the transactions of Societies, and the Editor will be glad to receive reports for insertion as early as possible after the meetings have been held, and at the latest before the 24th of each month.

**AM: PHOT: ASSOC:—**The annual meeting of the Council of this Society was held on Wednesday, July 2nd, at 58, Pall Mall; the Right Hon. the Lord de Ros in the chair. His Royal Highness the Duke of Cambridge was elected a Vice-President, and Mr. A. Newton Melhuish was, on the proposition of Mr. Glaisher, appointed Assistant Secretary. Mr. Arthur James Melhuish then laid before the Council the pictures for the current year, which had been arranged and classified by Mr. Glaisher. After a careful examination they were pronounced to be far in advance of any previously received. They were arranged in four classes. The first class contained 128 pictures, which were contributed as follows:—R. O. Milne, 22; R. Murray, 9; the Lord de Ros, 1; General Kaye, 1; W. S. Hobson, 5; F. S. Schwabe, 10; General Sladen, 1; W. Vanner, 11; R. Leventhorpe, 7; the Vicomte de Condeixa, 5; Mrs. Hobson, 3; J. L. Cohen, 1; Mrs. E. T. Daubeney, 1; Dr. Drew, 5; Miss Mahon, 4; H. O. Hutchinson, 6; the Rev. G. J. Perram, 1; F. Wrigley, 8; J. T. Black, 1; F. Griffith, 11; M. de Déchy, 2; W. Gaddum, 3; L. Ashburner, 1; Miss J. Wilson, 2; Surgeon-Major Foster, 3; and F. G. Smart, 4. The following prizes were awarded: To R. O. Milne, for Nos. 5, 400, 412, and 415, the first prize, a large silver goblet; to F. S. Schwabe, for Nos. 15, 24, and 33, a silver goblet; to W. Vanner, for Nos. 105, 106, 110 and 111, an oil painting in frame, by McEvoy; to R. Murray, for Nos. 255, 257, and 262, a handsome portrait album, with silver plate; to F. Griffith, for Nos. 7 and 14, a handsome portrait album; to the Vicomte de Condeixa, for Nos. 4 and 5, a large silver medal; to W. S. Hobson, for Nos. 366 and 367, a handsome portrait album; to Dr. Drew, for Nos. 6 and 13, a medal; to W. Gaddum, for Nos. 10 and 31, a medal; to Miss Wilson, for Nos. 5 and 6, a medal; to Miss Mahon, for Nos. 4 and 14, a medal; to J. C. Cohen, for No. 7, a medal; to H. O. Hutchinson, for Nos. 5 and 7, a picture in frame; to F. Wrigley, for Nos. 2 and 6, a handsome portrait album; to the Rev. G. J. Perram, for No. 6, a medal; to F. G. Smart, for Nos. 16 and 13, a medal; to General Kaye, for No. 2, a medal; to M. de Déchy, for No. 55, a portrait album; and to R. Leventhorpe, for No. 204, a medal. A vote of thanks was given to Mr. Glaisher for the time and attention he had bestowed to the arrangement and classification of the pictures, on the motion of Mr. Howard, seconded by the Earl of Rosse.

**BATH PHOT: SOC:—**On Saturday, June 28th, a party of members, numbering seventeen, visited Lacock Abbey, *via* Box and Corsham. Upon arrival at the abbey, Mr. C. H. Talbot conducted the party through the house, which abounds in treasures in art, science, and literature. Numberless objects of scientific interest are there; but what was of especial interest to photographers are those unique and early specimens of the photographic art which made the name of Fox Talbot so famous. These date from 1834 onwards. Fox Talbot was known to his friends as a very rapid experimenter, able to follow an idea and results in quick succession over a wide field of research; hence so much ground covered. Mr. Talbot showed the company several albums of photographs produced by his father by means which he discovered anterior to his publication of the Photogenic and Calotype processes in 1839 and '41 respectively. The etched copper plates prepared for Fox Talbot's photoglyphics and a number of specimens of the process were shown. Notwithstanding the incessant rain, cameras were fixed and several views of the buildings taken. An invitation to visit Prior Park from Canon Williams was read by the Secretary, and unanimously accepted for July 26th. Swift's new hand-camera, the Memorandum, Powell's developoids, and other novelties were drawn attention to on the road. It was also decided to discontinue the indoor meetings at the Institution until next September, but regular outings will be supplemented.

**DUKINFIELD PHOT: SOC:—**The ordinary meeting was held on the 24th ult., when the President (Mr. Shirley) gave a paper on "Hand-Cameras." He had on view "The Facile," McKellen's "M. S. Detector," and "The Key," "The City," "The Diamond," "Paul Lange," and others. After a very enthusiastic discussion, Mr. Winterbottom (Hon. Treasurer) exhibited and explained a hand-camera designed and made by himself, for films and Eastman rollholder, which was very much admired. The Society had an outing to Ingleton, Yorkshire, on Saturday, 15th ult.

**EAST DULWICH AND PECKHAM PHOT: SOC:—**At a meeting held on the 4th inst., the President in the chair, one member was elected, and one gentleman proposed. A number of prints and negatives, taken by members at the Society's excursion to Windsor on Saturday, June 21st, were shown. Mr. W. F. Slater laid before the Society one of his half-plate cameras and lenses, which he is now manufacturing at a reasonable price. Samples of Wormald's symmetrical masks were also on view. It was resolved that an extra excursion be made to Richmond on Saturday, July 12th, and that members and friends meet at the bridge at 6.30 on that day. Members are reminded of the excursion to Boxmoor and Hemel Hempstead on July 19th.

**ENFIELD CAMERA CLUB.**—The secretary states that permission having been obtained from Major Taylor for taking photographs in his park at Winchmore Hill on Saturday the 12th inst., the second field day will be held there on that day. Members to meet at Winchmore Hill Station at 3.15 p.m.

**HOLBOEN CAMERA CLUB.**—The usual weekly meeting was held on July 4th, at the headquarters of the Club, 100, High Holborn, when a very instructive lecture on "Developers and Development" was delivered by Mr. A. Jones, and a discussion followed. The evening closed with a hearty vote of thanks to the lecturer.

**JERSEY AM: PHOT: SOC:—**An ordinary meeting was held on Wednesday, June 4th, at 3 p.m. Judge Messervy read his paper on "Stereoscopic Photography." Judge Messervy gave a clear and succinct account of his subject, embracing a description of the operations of negative-making, printing of stereoscopic work, both on paper as well as for transparencies. At the conclusion of the paper, the Secretary asked if it were not necessary, or at least advisable, to use lenses in the stereoscope of the same focal length as that of the lenses by which the negative had been taken. Judge Messervy replied that it was better such should be the case. The President asked some questions relative to shutters and plates used, also the method of making transparencies, as well as how to get the two pictures in position reversed for obtaining the stereoscopic effect. Judge Messervy said he always cut the negative in halves with a diamond, and printed each half separately in a larger printing frame, though both were printed at the same time and under the same conditions of light, length of exposure, etc. By cutting the negative it became possible to get the two pictures reversed on the glass of a transparency without the latter being in two halves, as would otherwise have to be the case. Some remarks followed on the sizes of stereoscopic plates, the regulation size being 6½ by 3½ ins. It was



agreed that a medal be awarded to the competitor obtaining the greatest number of votes for pictures taken during the excursions of the year. On Thursday, June 12th, a few of the members proceeded to Rozel Manor, kindly opened for the occasion by the owner and occupier, Rev. W. Lemprière, but the weather was unsatisfactory, and the visit was announced for the following Monday, June 16th, when the Society made a good muster. The weather was unexceptionably fine and the light very good, though for the most part diffused. An ordinary meeting was held on Wednesday, July 2nd, at 8 p.m. Judge Messervy, Vice-President, took the chair in the absence of the President. The Chairman opened and numbered the photographs sent in for competition, which were twenty-four in number. The members felt that in view of the great merit of the exhibits their five votes could not adequately represent the value of the pictures, neither could they profess to be capable of judging them, and it was resolved to postpone the awards. A special meeting was held on Friday, July 4th, by order of the President, to examine and vote for the pictures taken at the last excursion. The date of the next excursion was fixed for Monday, July 21st; locality, Bonne Nuit Bay. The pictures were then exhibited and voted on.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—A meeting was held on the 4th inst., Mr. E. Eastwood in the chair. Mr. M. Stodart gave a most interesting paper on the development of a photographic plate, handling his subject with care, and making it comprehensible even to the younger members of the Society. A member proposed that a competition take place between members of the club for the best, second, and third best silver prints, the prints to be sent to the Secretary, Mr. B. Davidson, of 62, Manor Road, Brockley, S.E., on or before August 31st. Each member to forward two prints, any size, from quarter to whole-plate. That Mr. Charles W. Hastings be requested to act as judge. The proposition was duly seconded and carried unanimously. After a vote of thanks to Mr. Stodart and the Chairman, the meeting broke up. Mr. Child will read a paper next meeting, July 18th. This gentleman has had many years' experience in photography in China, and a very enjoyable evening is anticipated.

**OXFORD PHOT. SOC.**—At a special meeting held on June 11th, Mr. E. A. Ryman-Hall in the chair, it was decided to make a set of slides of selected Oxford views for loan to photographic societies. The members are actively engaged in getting the views required, hoping to complete the set by Oct. 31st. On June 19th an excursion was made to Clifton Hampden, near Culham. Over seventy-five plates were exposed. At 5 o'clock the members were entertained to tea by the vicar and Mrs. Cotton, and on July 3rd several members showed their negatives, taken on June 19th, and prints from them. Various interesting points in connection with them were discussed. Mr. Kerry showed a batch of prints (by the cold-bath platinum process) of a bright pink colour. It was arranged to have an excursion, instead of a paper being read, on July 17th, to Sutton Courtney, near Culham; and an extra outing on Saturday, July 12th, to Ifley and neighbourhood.

**SHEFFIELD PHOT. SOC.**—The usual monthly meeting was held on the 1st inst., Mr. B. J. Taylor in the chair. After the routine business of the meeting, the President, Secretary, and Mr. Crowder showed prints of views taken at the recent excursion to Bolton Abbey and Woods, which were very much admired, the quality being all that could be desired. Mr. E. Beck read a humorous paper on Bolton, written by one of the members. It was arranged that the Society should purchase three American stereoscopes for use at the meetings, many of the members now taking stereo views. Arrangements were made for a half-day excursion to Ashopton and Derwent Hall on Saturday, the 19th inst.

**SOUTHSEA AM. PHOT. SOC.**—At an ordinary meeting held on July 2nd, Mr. R. Leventhorpe read a paper on seascapes. He remarked that Southsea was most favourably situated for this kind of work, and we had only to look into the windows of some of the professional photographers to see what could be done. With a hand-camera this was perhaps the easiest work we could select. For larger work he preferred an old-fashioned box-camera, and used a large view-finder. It was not necessary to focus for each view, and a *f*/16 stop was quite small enough. He found it more convenient to photograph from a yacht than from a fixed point, as, when sailing in the same direction as the object, a longer exposure could be given, and it was easier to get a better point of view. Numerous prints were handed round at the close of the paper, some of them being very fine.

**TUNBRIDGE WELLS AM. PHOT. ASSOC.**—The ordinary meeting of the above Association was held at the Mechanics' Institute, on July 3rd, Mr. A. W. Pierson in the chair. The Hon. Secretary placed on the table the plate rocker which Sir David Salomons had kindly presented to the Association, and a hearty vote of thanks was unanimously passed to Sir David for his thoughtful kindness. Mr. Lewis also brought the copy of *Naturalistic Photography* for the library which he had promised, for which a hearty vote of thanks was accorded him. Mr. Howard kindly offered the use of his dark-room to any of the members who had no convenience for the purpose of changing plates in the day-time or developing a plate or two. Mr. Lewis showed one of Dallmeyer's stereoscopic cameras of 1860, the same style of instrument as that which Mr. England did a great deal of his work at the 1862 Exhibition with; attached to it were a pair of short focus lenses, working at a large aperture and very rapid, but which are now out of date, and a flap shutter, also a dark-slide for the wet collodion process, and a double one for dry plates. The workmanship of the whole was very much admired, and notwithstanding that it had been used a great deal, it was in wonderfully fine order. Mr. Cassingham showed one of Tylar's automatic rockers, and also one of his negative storers. Most of the members who went to Bayham Abbey showed prints or negatives, and they proved that the excursion was a very successful one.

**WALLASEY PHOT. ASSOC.**—The monthly meeting was held on the 2nd inst., Mr. J. W. Gregg, Vice-President, in the chair. A discussion took place on eikonogen as a developer. Several members exhibited work done by its aid, Mr. Gregg being specially successful, his mode of development being to treat the negative first with eikonogen, and finishing with hydroquinone to obtain density. Mr. Sharp exhibited a new automatic hand-camera (the "Gresham"), also specimens of work on Carbutt films, consisting of river scenes, by Mr. Huson. Mr. Sharp also exhibited Mr. Wilkinson's light-tight cover for developing trays, a very handy and useful arrangement, enabling the operator in case of slow development to go on with other work in actinec light. The next meeting will be held on the 6th August.

**WOLVERHAMPTON AM. PHOT. SOC.**—The usual monthly meeting of this Society was held in the Society's room, Agricultural Hall, on July 1st, Major R. D. D. Hay, Vice-President, presiding. A most interesting and varied collection of competitive photographic prints was on exhibition (thanks to the AMATEUR PHOTOGRAPHER, the proprietors of which had generously sent them down from London), and their merits and demerits having been fully discussed, attention was turned to the exhibition of members' apparatus.

**NOTES ON ACID SULPHITE OF SODA.**—A correspondent in Zurich calls our attention to the following, which has been published in America:—Since amateur photography has come so prominently before the public, many are engaged in experimenting with a view to improve existing methods, and new substances are being continually brought out for use as developers or aids to development, which necessitate changes in formulae now in use. At the present time bisulphite of soda, or, as it is more commonly called, acid sulphite of soda, is before the photographic public for its approval or disapproval. It is a heavy, yellowish liquid, smelling strongly of sulphurous acid, and is put up for sale in bottles containing about one pound. We have made a test of it and find that used in the fixing bath in the proportion of two ounces of acid sulphite to each pound of hypo used (our formula was hyposulphite of soda one pound; water, two quarts; when the hypo is dissolved add acid sulphite of soda, two ounces), it was a great improvement. The negatives cleared in two-thirds of the time that they did in plain hypo, were remarkably clear in the shadows, entirely free from stain, while those fixed in the plain hypo were somewhat stained. We exposed a plate, cut it in halves, developed with the same solution; and with the intention of staining the plate, one half was fixed in plain hypo, the other in hypo to which acid sulphite of soda had been added with the result noted above. The printing quality of the negative fixed in the acid hypo was far superior to the other. We recommend the use of the acid sulphite in the fixing bath. We also use the acid sulphite with eikonogen and hydroquinone as a preservative, it may keep them, time will decide that point, but it so slowed their action as developers that we conclude the ordinary sulphite of soda to be good enough for us.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

3973. **Mounting in Optical Contact.**—I recently had sent me by post a photograph mounted in optical contact with glass; the glass was badly broken. I should be glad to know if I can remove the photograph (a silver print) so as to remount it?—**J. FITZ-VULTURE.**

3974. **Moon.**—Will any of your readers be good enough to give me the approximate exposure for a moonlit seascape, full moon, R.R. lens, Ilford ordinary, or rapid half-plate, and any hints respecting the same?—**W. A. H. BULLER.**

3975. **Boulogne.**—Will one of your readers inform me of a reasonable boarding-house at Boulogne? Must be in a convenient situation and clean. Also as to any difficulty with French customs officials about plates, etc.?—**MEDICO.**

3976. **Ostend.**—Will someone kindly give me the address of an inexpensive boarding-house at Ostend, with some particulars thereof? Must be in a convenient situation.—**MEDICO.**

3977. **How to Tone Matt Surface Paper.**—Will some one kindly tell me how to tone matt surface paper? I have been using the usual acetate bath, with the result that the prints nearly fade away, and do not tone at all, this occurring before fixing. I have tried printing deeper without success.—**MEDICO.**

3978. **Cornwall, Light in.**—Is the light in Devon and Cornwall good enough for hand-camera work with ordinary plates, an R.R. lens, and a shutter working at  $\frac{1}{100}$  of a second?—**LEX.**

3979. **Rochester and Chatham.**—Is there any permit required to photograph Rochester Castle? If so, where can it be obtained? Also, where can permission be obtained to photograph the interior of Rochester Cathedral?—**H. T.**

3980. **Yellow Stains.**—Having developed negative with pyro and ammonia, intensified with bichloride of mercury and either soda or ammonia—being a little dense through halation, I partially reduced with weak ferrocyanide of potassium and hypo, and dipped in hypo bath. I well washed yellow stain on negative. Can anyone tell me reason, and means to take out?—**H. F. LINGING.**

3981. **Hastings.**—I shall be glad if a brother amateur will inform me of any pretty "bits" suitable for the camera in the neighbourhood of Hastings.—**C. S. MYERS.**

3982. **Channel Isles.**—It is my intention, along with a friend, to spend two or three weeks at the above in August. Can any reader oblige me with names of places of interest, where to put up at, and best route from Manchester?—**ROSSESQUE** (address with Editor).

3983. **Best Camera.**—Will anyone tell me which is the best hand-camera, the Ideal or Facile, for really good work?—**E. W. V.**

3984. **Plates for Hand-Camera.**—Could anyone kindly tell me the name of any maker who makes rapid plates  $\frac{3}{4}$  by  $\frac{3}{4}$ ? I have the Demon plates, but wish to try some others.—**J. W. W.**

3985. **Holland.**—Can any reader give me information about Holland, such as passing customs, obtaining English dry plates, use of dark-room, etc.; also which is the best town to make headquarters?—**10 BY 8.**

3986. **Developer for Ilford Plates.**—Will any reader tell me, as I am a beginner, the best developer for Ilford, to have a good negative?—**STRANGER.**

3987. **Aberystwith.**—Will any reader tell me the best places to photograph in and about neighbourhood, as I am going to stop there about August, September; also a place for obtaining Ilford plates, etc.?—**STRANGER.**

3988. **Developer.**—Wanted, a good formula for negatives of hydroquinone, and either carbonate of potash or washing soda. Who will give?—**H. M. P.**

3989. **Toning Formula.** by F. J. Paterson (see *British Journal Photographic Almanack*, 1890, p. 420.)—How is the lime water there mentioned made, and what kind of lime is used?—**G. H.**

3990. **Littlehampton.**—Am going to Littlehampton on the 12th inst. for a fortnight. Can any brother amateur give me any information as to locality and dark-room accommodation?—**T. EDWARDS, Ingleside, Chelverton Road, Putney, S.W.**

3991. **Shutter.**—Will some brother amateur who has tried Lancaster's chronolux shutter tell me if it is to be recommended or not? and, if not, will he tell me of a good shutter?—**IN DOUBT.**

3992. **To Make Lens.**—Wishing to make a Rectilinear lens, with two simple lenses at opposite ends of a tube, as suggested in "Newcastle's" letter, I wish to know what length of tube is required, and where the stop should be?—**W. W.**

3993. **Switzerland.**—An amateur will be very glad of any advice respecting the use of gelatine films on the Alps, and what exposure will be right in a fortnight's time?—**SISTER.**

3994. **Bromide Paper.**—What is the best mountant for this paper? The ordinary solution of gelatine softens the gelatine on the face of this paper, causing it to stick to the paper used for rubbing it down with, ruining the print. I imagine starch would cause the same trouble, though it is recommended by Mr. A. Pringle in his paper on "Bromide Printing." I should prefer to make the mountant myself.—**GROVES.**

3995. **Chloride of Cadmium.**—Mr. Vereker, in the *AMATEUR PHOTOGRAPHER* for March 28th, gives the index of refraction of a solution of this substance in glycerine as 1.500, while that of glycerine alone is 1.475 when used to make lenses. Can anyone kindly tell me what is the cost of this substance, as it is not mentioned in ordinary price lists, and also what amount of it glycerine will dissolve?—**GROVES.**

3996. **Durham Cathedral.**—Will someone kindly tell me where to apply for permission to photograph the interior of Durham Cathedral, and the exposure required on a bright September day, with  $\frac{1}{16}$  and Ilford plates?—**A. M.**

3997. **Lynton.**—As I shall be spending a few days at Lynton this summer, I shall be glad if any person who knows the town and country surrounding, will kindly inform me as to where the best bits for the camera are to be found? Is there a dark-room at the disposal of amateurs? Any information will oblige.—**MARCUS.**

3998. **Killarney.**—Am visiting Ireland end of July. Would be glad of information as to good place to stay at Killarney? Would prefer neighbourhood of Muckross. Also if any dark-rooms, if Ilford plates are obtainable, and any information as to points of interest and route from Killarney to Glengarriffe?—**F. F.**

3999. **Strength of Solution.**—A quantity of hydroquinone is shaken up with an amount of cold water insufficient for its complete solution. How many grains of the salt will be contained in one fluid ounce of the clear liquid thus obtained?—**PAT.**

4000. **Glass.**—Will some brother amateur kindly tell me the best way to clean the glass of the lens of my camera, and also how to make a good dead black?—**TOFF WALL.**

4001. **Land's End District.**—I propose visiting this district at the end of July. Should be glad if anyone would give me an idea of what to do for about a fortnight—where to stay, for trips round the district, etc.? Information will be gladly received by **TOURIST.**

4002. **Changing Bag.**—Would some brother amateur kindly tell me how to make an inexpensive changing bag, or where I could buy one, and the price?—**J. E. F.**

## QUERIES UNANSWERED.

April 4th.—Nos. 3684, 3674, 3677.

18th.—No. 3718.

25th.—Nos. 3727, 3742, 3747.

May 2nd.—No. 3758.

16th.—No. 3820.

23rd.—Nos. 3839, 3843.

June 6th.—Nos. 3883, 3884.

13th.—Nos. 3885, 3896, 3901, 3910, 3911.

20th.—Nos. 3914, 3917, 3918, 3922, 3924, 3927, 3928, 3929.

27th.—Nos. 3933, 3935, 3939, 3940, 3943, 3946.

July 4th.—Nos. 3950, 3953, 3967, 3968, 3969.

## ANSWERS.

3984. **Toning.**—Warm the toning solution slightly and the sediment will disappear. Your mistake lies in mixing the sulphocyanide and gold at too low a temperature.—**PETAN.**

3984. **Crystoleum.**—The people who sell cristo-

leum glasses usually furnish a copy of instructions. Double albuminised sensitised paper is preferred, but ordinary will do.—**PETAN.**

3925. **Burnishing.**—The troubles "Starch" complains of are found when using cheap mounts. I find good enamel mounts, carefully dried, will stand more abuse than can be done by a burnisher.—**PETAN.**

3947. **Perranporth and New Quay.**—At these places "B" will find an unlimited number, almost, of lovely bits for camera work. At the former the island with rocks and boats, the Cligga Cliffs, the St. Agnes (pronounced Ann's) Cliffs, an old cross and church in Perran Sands, the entrance to cathedral cavern (only feasible at spring tides), etc. At New Quay, the Harbour, Laury's Mill, old cross at Mawgan, Mawgan Convent, Zachary Isle, the Lion Rock, general view of New Quay from Cligga, the Gannel Valley, Fistrall Cave. At Bedruthan: Queen Bess, the Steps. Nearer New Quay: Porth Bridge, etc., etc. Between the two places: Crantock Church, Cerbert Church, Holywell Bay, etc.—and generally all along the coast, any amount of grand rock scenery, and for fast shutter work splendid breakers after a little wind. Just a word of caution, beware of over-exposure, the light is surprisingly actinic, Ilford ordinary  $f/22$ , quarter of a second was often over-exposed.—**H. M. P.**

3947. **Perranporth and New Quay.**—There are too many lovely spots to enumerate. Towan Head, Bedruthan Steps, Mawgan, Porth, the ancient chapel of St. Piran, and the beautiful rocks on the coast at Perranporth are some. New Quay is the best centre.—**PEBBLE RIDGE.**

3947. **Perranporth and New Quay, North Cornwall.**—New Quay is reached by branch of Great Western Railway, *via* Par, and is fast becoming a fashionable watering-place. The surrounding scenery is very fine, especially the cliffs, bays, and caves, and "B" would find plenty of work for his camera. Lodgings at this time of the year are more expensive than when the "season" is over; but the better plan would be to take up one's quarters in one of the hotels (Buckthorpe's Commercial, though not the best, is comfortable, and the charges reasonable), and then, if not satisfied, to look out for private lodgings at leisure. The following places are within easy distances:—(1) The Lanherne Nunnery, in the parish of Mawgan; parish church, in the yard of which are a fine old Cornish cross and curious headstones. The valley is very beautiful, and the hotel (Gilbert's) comfortable. (2) Bedruthan steps, a fine lot of rocks and cliffs. (3) Trenance Valley. (4) Crantock, with old church and curious font, granite coffin, etc. (5) S. Columb Major, with church in early decorated and perpendicular styles of architecture, two old crosses; two miles south-east is Castle-an-Dinas, a large and nearly circular British or Danish encampment, with double vallum, near by are "The Nine Maidens" and "Trewan," a fifteenth century embattled mansion, with granite entrance hall; "Roch Rock," easily reached by train. Perranporth is about twelve miles off, noted for its magnificent beach and cliff scenery. It is fast becoming a favourite watering place, reached by trap from Truro. "Perran Round," an open-air theatre, the remains of the old church, nearly destroyed by the shifting sand, Perran Cross, and the fine old church are within easy walks. S. Agnes is four miles from Perranporth. It has a pretty church, fine cliff scenery, and the "Beacon" rises 620 ft. above sea level. The writer is not sure about dark-rooms. There is, however, a photographer on New Quay, and perhaps "B" could change plates there. There is no dark-room at Perranporth, but the writer has one in S. Agnes, and it is on the list of the *AMATEUR PHOTOGRAPHER*.—**W. LITTLETON GRACE.**

3948. **Ilfracombe.**—Good subjects would be found in Ilfracombe itself, as well as at Hele, Watermouth Caves, Berryanbor, Lynton, Lynmouth, Lee, Morthoe, Bramston, Appledore, Bideford, and both banks of the Torridge.—**PEBBLE RIDGE.**

3948. **Ilfracombe.**—See volume 8 of *AMATEUR PHOTOGRAPHER*, page 7, and volume 10, 55.—**H. M. P.**

3948. **Ilfracombe.**—At Lynton and Lynmouth, eighteen miles from Ilfracombe, "Quarter-Plate" will find sufficient "bits" to keep him employed for a month.—**BETA.**

3949. **Books.**—Will find the book "Photography Simplified," published by Mawson and Swan, at sixpence and ninepence, all that you desire.—**B. H.**

3949. **Books.**—See the first part of my answer, "No. 3931, Books on Photography," in last week's issue; that will tell you all you want to know.—**W. A. J. CROKE.**

3949. **Books.**—See answer 3931.—**W. A. WATTS.**

3951. **South-West of England.**—See reply to 3947.—Endeavouring to answer Mr. Wilson—from his arrival at Devon, he will find an unlimited number of interesting and picturesque scenes. Among places he must not miss I should say are Exeter, Torquay, Plymouth (whence numerous excursions to Plymouth Valley, Dartmoor, the Sound, and Hamoaze, River Tamar, Mount Edgumbe, etc.); Liskeard (whence Caradon, Cheesewring, Looe, etc.), Par (whence Newquay), Penzance for Mount's Bay and Land's End, St. Ives, Helston, for the Lizard. In my Rouch's Bureka I find Ilford ordinary quite sensitive enough; also his folding lamp with a



night light inside very handy for changing plates after dark; see 3955.—H. M. P.

3952. **Boulogne.**—You would obtain all information as to the cues on plates, etc., from the French Embassy. As to the last part of your question, Boulogne is divided into two towns, the upper and the lower; in both there are many photographic bits, especially in the upper, which is by far the oldest and most interesting. In the lower town there are bits of interest in the Market Place, the bathing place, and the Etablissement. The Napoleon column, to the left of Boulogne, is worth a plate. Outside Boulogne the greater part of the country is far from picturesque. But there is a pretty object for a walk in the Vallée du Denacre, and on the opposite side of the River Liane there is a pretty village called Outreau, of which the church makes a good view. At a distance of five miles from Boulogne, at the first station on the railway, at the Pont de Briques, there is a pretty walk into the forest of Neuchatel.—W. A. J. CROKE.

3954. **No. 3 Kodak.**—This is a really good hand-camera. My wife has just returned with me from North Wales, and she exposed four rolls, and has developed two, and all are good, as far as film and lens, of course. She lost some, but that was her fault, but she has only just begun. The film (new) is all one could wish. I have used ten or fifteen rolls, found no bad film since last May. The film if properly packed, will keep for five or six months without spoiling.—A. R. DRESSER.

3955. **Cornwall.**—See replies above to 3947 and 3951.—For St. Ives: The old church and cross close by, the Knill Monument on the hill, the Beaches, pier and fishing scenes. Easy excursions to Land's End, Penzance, Lelant, etc. Also see editorial reply to G. Murray Wilson, at page 21 of last number.—H. M. P.

3955. **Cornwall.**—See answer to 3947.—PEBBLE RIDGE.

3955. **Cornwall.**—St. Ives is full of quaint "bits" admirably adapted for the camera. I lately spent a couple of hours there, and had no difficulty in finding ample for about a dozen exposures. In "The Digey" there is a curious old archway, and this and the other "streets" are simply full of queer houses and places too numerous to mention, but all of which will make good pictures. I found a professional photographer's, just on entering the town, where plates can be changed and developed if required.—F. A. R.

3956. **Short Focus Lens.**—Laverne's detective lens, price 27s. 6d. Either Fallowfield's Facile or Abraham's Ideal may be recommended, according to taste; would advise "In Doubt" to examine both if possible.—W. A. WATTS.

3957. **Saturated Solution of Hypo.**—Is too strong, and would probably blister prints and frill plates. Best strength is for both prints and negatives, 4 ozs. hypo to 20 ozs. of water. Saturated solutions vary in strength according to temperature, so it is best to weigh out dry salt, but as at 60 degs. F. a saturated solution should contain 58 per cent. of hypo, it would not be far wrong to take 6 ozs. of such a solution and make up to 20 ozs. with water. Small quantity of ammonia has no injurious effect.—W. A. WATTS.

3958. **Under-Exposed Plate.**—Of course, an under-exposed plate requires much longer development than one that is properly exposed, though you cannot expect to get out of the plate what is not on it. Intensification often comes in useful with under-exposed plates.—W. A. J. CROKE.

3958. **Under-Exposed Plate.**—An under-exposed plate requires longer development than one over exposed with same solutions. But as with over-exposed plate, as soon as you know it, you should much lessen alkali and add restrainer; it may take proportionately long to develop.—W. A. WATTS.

3959. **Toning Bath.**—A toning bath can be used for prints till gold is exhausted; usually from a grain to grain and a half is consumed per sheet of paper, unless gold is precipitated by light. See Answer 3970. A small quantity of hot water should not hurt it.—W. A. WATTS.

3960. **Flash Light.**—About 15 grs.—W. A. WATTS.

3961. **Changing Bag.**—I made a changing bag and used it all last summer with perfect safety. Get one yard of good black silesia and one yard of canary fabric, have them both sewn together so that the canary is inside. Fold it so that the selvage is at each end, cut the ends off to make about 9 inch, make a slot and run elastic in to keep tight over the hands; you will find you can change plates this way quite easily. Put the slide and plates into the bag, then put your hands in each end; you will soon be able to feel the glass side of plate.—B. H.

3962. **Clouds.**—Short exposure (drop shutter with f/16), slow development, and double pyro, weak alkali.—W. A. WATTS.

3963. **Rochester and Chatham.**—No permission is required to photograph Rochester Castle or Cathedral. From the top of Castle a capital view can be had of Cathedral. Unfortunately the latter is undergoing restoration, so that a near view of west front is unattainable owing to hoarding, etc.; part of the interior is in the same condition, the organ screen being covered with sheeting, but the nave looking west, or choir east, are all right now.—E. L. C.

3963. **Rochester and Chatham.**—At present the

cathedral is undergoing restoration, so that the best bit—the splendid west door—cannot be taken. To photograph the interior, apply to the dean. Restoration is also in progress here, but not to any great extent. For the castle, no permission required, entrance fee 3d. The best view of the cathedral is from the top of the castle; also some good bits of Norman architecture in the interior. A fine view of castle and cathedral from the opposite bank of the Medway, close to the bridge. Photography would not be permitted in the Chatham Dockyard; and avoid the fortifications.—W. H. H.

3964. **Watkins' Exposure Meter.**—I have tried this meter, and can strongly recommend it. Any amateur possessed of ordinary intelligence can by its use in a few minutes, determine the period of exposure for any subject, in any light, with a degree of certainty which I have experienced in no other instrument. The instructions which accompany the meter are clear and concise, but somewhat too lengthy for your answers column.—AN HON. SECRETARY.

3965. **Llandudno.**—If G. Wade goes to Llandudno he will be near all the good photoing points of North Wales, but I should go to Bettws-y-Coed, and then go by train to the various spots, but there is enough round Bettws-y-Coed for a few weeks.—A. R. DRESSER.

3966. **Stereoscopic Photography.**—The best practical treatise on stereoscopic work was published in the "British Journal Almanack" for 1887, by Traill Taylor. If "H. F." cannot obtain the book, I can lend it him (address with Editor).—BON.

3970. **Toning Bath.**—The black precipitate is gold, and is caused by exposure to light. Filter away from precipitate and add more gold. Keep bath from light, or better yet, use borax or tungstate bath, preparing only as much as sufficient for prints to be toned, and throw away afterwards.—W. A. WATTS.

3971. **Quick-Acting Fixed Focus Lens.**—Lancaster supplies all sorts of lenses mounted and unmounted, achromatic or ordinary, but with shutter working at  $\frac{1}{25}$  sec. I fear nothing but very well-made rectilinear or Euryscope would be any use.—W. A. WATTS.

3972. **Scratches on Burnishers.**—Can be removed by repolishing the bar with a set store and oil, with the addition of elbow grease, according to depth of the scratches.—PETAN.

## EDITORIAL

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED : AM : PHOT :

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

REV. JAS. CROSSLEY.—No. 1. It is at least unfortunate that the wooden pier should intrude in the foreground. Your picture, as a whole, lacks definition, and you have not been careful to cover the plate. No. 2. The whole is indistinct, especially the foreground. No. 3 is not interesting, and the subject lacks sharpness. No. 4. A very pretty view, well chosen, but your lens does not cover. No. 5. Flat, but well lighted. No. 6. Attitude is extremely inartistic, but the face is well lighted. No. 7. The subjects in group are unnecessarily huddled together and lack definition. Your prints have the appearance of having been printed from a stained or fogged negative.

L. H.—Your negatives are all thin, and your lens has not in the case of No. 1 covered the plate. The subject required greater density. No. 2 is better, but a very still day should be chosen for tree studies. In No. 3 you might well have prolonged exposure. We cannot advise you further, as you do not favour us with any particulars of apparatus, lens, plate, etc.

SACUL.—Your negative is much over-exposed, and you have not been sufficiently careful in developing. You should have exercised more patience, and been less liberal with the ammonia solution. Your work must improve before you will stand a chance for a prize.

EDITH A. CARTY.—Before passing any opinion we should like to see the negative.

BETA.—The spots are possibly caused by splashes upon the plate before developing, or from uneven coating. The pink tint is not fog, but a slight staining of the film by the developer, and is not at all detrimental to it.

G. B. WATERS.—MS. duly received.

H. F. LINGING.—Certainly; you can by sending to the publishers.

T. WARTERS.—Have written to you.

R. H. THOMAS.—We shall not now insert the letter.

W. FENTON JONES.—Your letter stating acceptance of conditions by your Council duly received.

W. FREW.—Both are useful machines. We should

prefer the B. The makers will send you full particulars. You can rely upon having a perfect machine.

W.—(1) We are writing *re* the dark-room, and thank you very much. (2) We do not know A, B, or C. You will do best to go to the firm making B. A good reducing camera was mentioned in the AMATEUR PHOTOGRAPHER for Feb. 21st. We are sorry to hear of the want of attention of the firm C. Can we help you in the matter?

HENRY CROUCH.—Shall be glad of paper at your earliest convenience.

BETA.—Not in our opinion, certainly.

BOB.—Fallowfield.

A. M. G.—There is no object in using a whole-plate lens on a half-plate. The A lens is a good instrument.

S. FRANCIS CLARKE.—Possibly next week.

AN A. P.—Certainly No. 1 is the best, quite worth the extra price.

W. BROWN.—Will answer next week.

X. Y. Z.—We have not seen either of the cameras, and cannot advise you.

M. R.—No. 1 is a first-class lens, and No. 2 will give you good all-round, and can be used for portraiture, it will work at f/8. For plates we should advise 6. In reply to 7, we prefer the older formula, but good results can be got with the plates with almost any developer. Why not use the one recommended by the maker?

CAMERA.—The photographs are returned. If your queries have not been answered we have overlooked them. Certainly continue the use of hydroquinone. Send us prints at any time, they may be unmounted.

J. R.—The matter had better drop; we do not therefore publish your letter.

E. Y. O.—We place them as follows: A, B, E, F, C, D, G. The C lenses in our hands have been excellent.

L. M.—Thank you for your letter; we have interviewed the firm, and from what they have told us do not really think that the matter would be advanced by our publishing your letter. We have ourselves had to return goods, and can only regret that the firm should have spoken of you in such an ungentlemanly a tone to their agent. Your suggestions as to payment are never likely to come about.

BEECHAMS.—It would be quite unfair for us to criticise your prints, as you have only been at work three weeks. They are really very fair. The paper you have chosen is a difficult one to work, and we should advise you to perfect yourself in silver printing before taking up platinotype. Your exposure is too long for f/10.

W. G. A.—The special backgrounds are advertised in back numbers of the AMATEUR PHOTOGRAPHER.

C. F.—We really cannot give you any idea as to the exposure to be given for a photograph of "Window in the Old Parliament House, Edinburgh." We should advise you to back your plate, and under the circumstances you might with advantage use an isochromatic plate. We should say that the first-named lens would be the best.

JOHN H. MONTAGUE.—Years of experience will not allow us to endorse your opinion, and we do not think your four conclusions are justified.

B. H.—If we could spare the space we would publish your letter; but the matter is so very trifling.

J. W.—The lenses of the maker you name are very good. We should advise you to have an R.R.

BICKNELL SMITH.—We should say that the print was never properly fixed or washed. Its appearance fully complies with the early efforts of most photographers. Its fault, non-attention to instructions clearly laid down in every hand-book.

B. DILLON.—We shall see the firm in a few days, and will try and get an explanation from them.

C. S. MYERS.—Your query is inserted; but you will find a very good account of Hastings and district in AMATEUR PHOTOGRAPHER, vol. vii., p. 361.

F. J. STOWASSER.—We have not Mr. Wall's address, so have returned your letter.

## Sale and Exchange.

**RULES.**—Forpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The pub-



lishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

#### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

"Amateur Photographer."—AMATEUR PHOTOGRAPHER, from commencement to present time (299 numbers), clean and fit for binding; cost £2 9s. 10d.; price £1 5s., or offer. — Raleigh Studio, 88, Brixton Rise, S.W.

AMATEUR PHOTOGRAPHER, from commencement to present date, 11 vols., complete and perfect, two first vols. bound half roan; price 30s. lowest; a bargain.—3, Walpole Street, Wolverhampton.

AMATEUR PHOTOGRAPHER, from May 25th, 1888, to present date; what offers cash or anything useful?—Madge, Newry Road, St. Margaret's, Twickenham.

Banjo, etc.—7-stringed American head banjo, 25s.; and 52 in. bicycle, balls throughout, see-saw saddle, and lamp, £5 10s.; — exchange for whole or half plate camera and lens.—F. Watts, 109, Senegal Road, Bermondsey.

Cameras, etc.—Half-plate camera, three double backs, rectilinear lens, stops, solid leather case, perfect condition; cost £8 10s.; take £5.—Knight, 13, Albion Street, Leeds.

Half-plate camera, rack adjustment, swing-back, etc., no lens or slide, 15s.; quarter-plate portrait lens, 10s.; negative washer, 3s. 6d.; 5 by 4 box camera, 3s. 6d.; whole-plate burnisher, 15s.—Sewell, Oldfield House, Heckmondwike.

Good mahogany Studio camera, quarter-plate, excellent, and e.d.v. lens; bargain, 50s.; worth double.—F. J. F., Park Leys, Stratford-on-Avon.

For sale, half-plate camera, with three double dark-slides (mahogany), suitable for a beginner, price 25s.; whole-plate elliptical shutter, 7s.; No. 1 Kodak, with 80 films, equal to new, with primer, 45s., cost £5 5s.—No. 61, AMATEUR PHOTOGRAPHER, Office.

Quarter-plate Optimus camera, square, reversing frame, rising front and slide, six extra slides (Tabbot and Bamer), fitted with Lancaster's Rectigraph lens, Iris diaphragm, and Kershaw shutter, make excellent hand-camera; £5, or offers.—Pike, Chemist, Newcastle-on-Tyne.

Fallowfield's 5 by 4 bellows-body folding camera, rising front, one dark-slide, 10s. 6d.; Shew's collapsible changing box for whole-plates and under, 7s. 6d.—Dodson, Swindon.

Camera, Lens, etc.—Half-plate camera, leather bellows, reversing back, three double slides, English lens, macintosh focussing cloth, two bags, all equal new; cost £8; will take £5.—Can be seen at W. J. Chadwick's, St. Mary's Street, Manchester.

Camera and Tripod.—Watson's 10 by 8 Premier camera and slide, in solid leather case, quite new, Ashford patent tripod; whole cost £14 15s.; will take £11.—Address, Gwen, St. James' Villa, The Crescent, Maidenhead.

Dark-Slides.—Pumphrey's half-plate Multiplex dark-slide, holding dozen plates, nearly new, excellent; 20s.—Rev. Page, Normanton, Ashby-Z.

Dark-Slides, etc.—Three Tylar's metal slides, adapter, half-plate, for Lancaster's Instantograph, half-plate single lens, with shutter; lot 25s., or 12s. 6d. each.—F. Udal, Dove Bank, Uttoxeter.

Fountain Pen, etc.—Fountain pen, Mable, Todd, and Co.'s "Calligraph," gold nib, as new; cost 18s. 6d.; sell 12s.; or exchange photographic sundries.—Walter Carter, 27, Albert Road, Peckham.

Hand-Cameras.—Kodak, No. 2, in good condi-

tion, moderate price.—W. Mudie, 52, Park Road, New Wandsworth.

Fallowfield's £4 4s. Facile hand-camera, latest pattern, equal to new, warranted perfect; price £3 3s.—W. North, 62, New Road, Aylesbury.

Hand-Cameras, etc.—Quarter hand-camera, bound in leather, six slides in case, can be used with or without tripod; 24s.—L. Lawton, 3, Bank Top, Morley, near Leeds.

Stirn's waistcoat detective camera and plates for 105 exposures; 20s.; perfect, as new.—Knight, 13, Albion Street, Leeds.

Fallowfield's Facile hand-camera, R.R. lens, four rotating stops, finder, Miall's patent sheaths; £4.—Fowler, 84, North Street, or can be seen Churchill's, East Street, Brighton.

Home-made detective quarter-plate, three folding backs, Dallmeyer's extra-rapid stereoscopic single lens, 4½ in. focus, Thornton instantaneous shutter, finder, guaranteed perfect; 70s.—Specimen negatives can be seen at Gamson's, 77, Essex Road, Islington, N.

Lenses.—Lens, 7 by 5 rectilinear, loose hood, with stops, working to f/8, best finish, quite new; 27s. 6d.—1, Hermitage Mews, Stamford Hill, N.

For sale, a 5 by 4 Optimus extra-rapid Eury-scope, quite new, never been used; cost £3 3s.; will take 45s.—S., 22, Chetwynd Road, London, N.W.

2B portrait lens for sale, highest offer.—H. Walker, Watchmaker, Minster, Thanet.

Will sell or exchange Ross' No. 4 R.S. lens; want rapid landscape, about 15 ins. focus, good maker.—T. Barlow, Clonmel.

Wray's 15 by 12 wide-angle landscape lens, £4 12s. 6d.; Optimus 5 by 4 wide-angle R.R., 30s.—Taylor, Infirmary, Peterborough.

Quarter plate double combination portrait, excellent definition; price 10s. 6d.; cheapest lens ever offered; call and see it.—Gamson's, 77, Essex Road, Islington, N.

Lancaster's whole-plate Instantograph lens, with revolving diaphragm, without shutter; 15s.; good order.—Groves, Ripple, Deal.

Lenses, etc.—Optimus Eury-scope, 7 by 5, new, £3; Newman's shutter to ditto, £1 5s.; Optimus R.R., 12 by 10, cost £7, £2; Beck's R.R., 10 by 8, Iris diaphragms, in case, £5; singly, or the lot £10.—C. Roseden, 35, Swan Street, Swansea.

Quarter-plate R.R., f/8, good definition, 17s. 6d.; whole-plate Tripod, 8s. 6d.; Lancaster's quarter-plate, 4s. 6d.—309, Liverpool Road, London, N.

Lens and Shutter.—Quarter-plate Lancaster's Instantograph lens, with shutter, practically as new, Iris diaphragm; first postal order for 14s. 6d. has it; guaranteed perfect.—Gamson's, 77, Essex Road, Islington, N.

Sets.—Underwood's half-plate Instanto camera (1888), one double dark-slide, tripod, with rapid rectilinear lens, f/8; cost £5 5s. as new; bargain, 67s. 6d.—John Slade, Slad Road, Stroud.

Camera, bellows, 10 by 8, with four double backs, cone extension, tripod stand, inner frames, Sergeant's and Marshall's shutters, view finder, baize bags for dark-slides, and box for camera; to be sold a great bargain.—Apply at Stanley's, 13, Railway Approach, London Bridge, S.E.

Quarter-plate camera, Le Merveilleux, good lens, dark-slide, stand, printing frame; price 15s.—W. Harmston, 42, Monson Street, Lincoln.

Abraham's quarter-plate Challenge camera, three double backs, rapid rectilinear lens, in waterproof canvas case, folding stand, hardly been used; cost over £7; price £5.—Beer, 65, Sydenham Park, Sydenham.

Quarter-plate camera and stand, three double dark-slides, Optimus rapid rectilinear and wide-angle lenses, Kershaw shutter, in case; price £5 10s., all in good order.—F. Johnson, 25, Arthur Street, Gloucester.

Superior half-plate camera, lens, four double backs, tripod stand, portable changing bag; 70s. lot.—George's, 8, Blomfield Road, Maidon Hill.

Half-plate camera, rising front, swing-back, two double dark-slides, tripod, cabinet lens, all in good condition; the lot 61s.—Reynolds, 8, Jefferson Street, Bromley, E.

Lancaster's half-plate Instantograph, complete with lens, shutter, tripod, one wood and three Tylar's dark-slides, in first-rate condition; price with

case, £23 15s.—Address, A. E. Smith, 56, Schubert Road, Putney.

Lancaster's half-plate 1888 Instantograph camera, instantaneous lens, shutter, tripod, two double backs, etc., complete, equal to new; price £23 10s.—A. T. H., 11, Park Terrace, New Swindon.

Quarter camera, bellows body, lens, two double backs, and tripod, cheap, 14s.; also 4 in. condensers, 7s.—Kennedy, 4, Lower Archer Street, West Hartlepool.

Half-plate camera, bellows body, two dark-slides, tripod; 20s.—A. D. Clarke, Pailton, Rugby.

Whole-plate camera, three double backs, tripod stand, instantaneous shutter, two trays, and printing frame, complete; £10 10s.; rare bargain.—C., 1, Woodsome Road, N.W.

Lancaster's half Instantograph, Tylar's rapid lens, four double backs, patent tripod, portrait shutter, camera case, as new; £3 15s.; exchange hand-camera.—Davis, Briercliff, Kidderminster.

Shutters.—Pneumatic Phoenix shutter (by Reynolds and Branson, Leeds), to fit mount of 1½ ins., no fault; cost £1 1s. last Easter; price 12s. 6d.—Thos. Burnell, Bradmore College, Chiswick, W.

Pneumatic drop shutter; cost 7s. 6d.; what offers over 3s. 6d.—Howard, 16, Perryn Road, Acton.

Sundries.—Lancaster's 1890 half-plate Instantograph, with double slide (panel slightly scratched), 40s.; two printing frames, squeegee, three vulcanite dishes (all half-plate), ebonite film clip, 120 minim and four ounce glass measures, two glass funnels, 7s.—Long, 77, Shirley Road, Southampton.

One quarter dark-slide, five quarter printing frames, four papier-mache dishes, one 12½ by 10½ dish, one quarter sensitised paper-holder; lot 7s. 6d.—A., care of Publishers, AMATEUR PHOTOGRAPHER, 1, Creed Lane, Ludgate Hill, London, E.C.

Tricycle.—Tricycle, genuine carrier, for sale, ball bearings to all parts, including pedals, in first-class condition, enamelled and part nickelled, with carrier for camera, and fitted with Lancaster's cycle clip to same, carrying tripod stand; price, complete, £7 10s., a bargain.—R., Horse and Groom, Haydon's Road, Wimbledon.

Tripod.—Fallowfield's walking-stick stand, for use with Facile detective camera, new, only used once; 18s. 6d.—F. C. Barton, Saffron Walden.

#### WANTED.

Camera, etc.—12 by 10 long-extension camera, with or without dark-slides; state lowest cash price.—B., 91, Seven Sisters Road, Holloway.

Camera and Lens.—First-class half-plate camera, also rapid rectilinear lens; must be good maker.—Bennett, 16, Causeway, Cambridge.

Hand-Camera.—Hand-camera, Facile or Kodak 2 preferred; approval.—Hawkins, Gore Court, Sittingbourne.

Sets.—Half plate camera, lens, and tripod, by good maker, cheap.—Jenkins, Glenarm, Belfast.

Shutter.—1½ in. Thornton or Kershaw time-instantaneous shutter.—Batty, Denman Drive, Liverpool.

PLEASURE CRUISES to the LAND of the MIDNIGHT SUN.—THE ORIENT COMPANY'S steamships GARONNE (3,876 tons) and CHIMBORAZO (3,847 tons) will make a series of TRIPS to NORWAY during the season, visiting the finest fiords. The dates of departure from London will be as follows, and from Leith two days later:—

June 4th, for 15 days	July 15th, for 15 days
June 18th, for 27 days	July 23rd, for 27 days
June 25th, for 15 days	Aug. 8th, for 21 days

The steamers will be navigated through the "Inner lead"—i.e., inside the fringe of islands off the coast of Norway—thus securing smooth water; those of the 18th June and 23rd July will proceed to the North Cape, where the sun may be seen above the horizon at midnight. The Garonne and Chimborazo are fitted with electric light, hot and cold baths, etc. Cuisine of the highest order.

Dark Room provided for the use of Photographers.

Managers, F. Green and Co., 13, Fenchurch Avenue; Anderson, Anderson, and Co., 5, Fenchurch Avenue, London, E.C. For further particulars apply to the latter firm, or to the West End Agents, Grindlay and Co., 55, Parliament Street, S.W.

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#### NOTICES AS TO ADDRESS.

PUBLISHING DEPARTMENT.—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the Amateur Photographer are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

NOTE.—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

ADVERTISEMENT DEPARTMENT.—All communications respecting TRADE Advertisements in the Amateur Photographer are to be addressed to FARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

NOTE.—Trade Advertisements are received up to Tuesday morning.

EDITORIAL DEPARTMENT.—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, Amateur Photographer, 1, Creed Lane, Ludgate Hill, London, E.C.

NOTE.—To ensure insertion, all Communications should reach the Editor on Tuesday.



# The AMATEUR PHOTOGRAPHER

Telephone No. 1645      Telegraphic Address: VINEY, LONDON      Edited by CHARLES W. HASTINGS

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FRIDAY, JULY 18, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

WE are to-day in a position to publish the awards in connection with the AMATEUR PHOTOGRAPHER Travelling Studentship. The photographs contributed show much care in selection, and the prize pictures are far and away the best we have ever had. They will be on exhibit at Creed Lane next week, and can be seen any day except Saturday between the hours of ten and five.

The Judges found considerable difficulty in awarding the prizes, the first three prize winners having entered for competition such excellent photographs, everyone perfect in technique and showing great care in selection. The following is the award:—

### "TRAVELLING STUDENTSHIP COMPETITION, 1890.

"Having examined the photographs contributed to the AMATEUR PHOTOGRAPHER 'Travelling Studentship Competition,' we unanimously award the prizes as follows:—

First Prize ..	..	..	Value £30 0 0
		ALFRED STIEGLITZ.	
Second Prize ..	..	..	Value £21 0 0
		MAURICE DE DECHY.	
Third Prize ..	..	..	Value £14 0 0
		A. D. GUTHRIE.	
Fourth Prize ..	..	..	Gold Medal.
		ALEX. KEIGHLEY.	
Fifth Prize ..	..	..	Silver Medal.
		MARTIN J. HARDING.	
Sixth Prize ..	..	..	Bronze Medal.
		WILLIAM MANN, M.A.	

Judges { JOHN PARKER, R.W.S.  
PETER MACNAB.  
CHARLES W. HASTINGS."

July 14th, 1890.

NOTE.—These prizes are awarded subject to the rules affecting the prize winners being agreed upon.

Mr. Alfred Stieglitz, of New York, but at present residing in Vienna, has before successfully competed for our prizes, and in each competition he has shown improvement; he contributes landscape, landscape with figure, and figure study. The titles of his photographs are "A Study in Grey," "Stones of Venice," "A Country Road," "Little Innocent," "Give us this Day our Daily Bread," "Weary," "Before the Wayside Inn," "Gardening (a study)," "At the Well," "A Study in Light and Shade," "At the Brook."

All the negatives and prints are un-retouched, and no cloud negatives are used. They have been taken with a Steinheil Aplanat. The plates used include Obernetter, Eosine, Schlenssn, Perulz (eosine), and Lumière. The developers have been pyro and soda and iron, and the whole of the prints have been produced in platinotype.

M. Maurice de Déchy, of Buda-Pest, Hungary, Hon. Cor. Royal Geographical Society, sends us "Landscapes in Remote Lands," of surprising beauty, several taken in the Caucasus, the Balkans, Bosnia, Herzegovina, etc. This competitor's photographs of most difficult subjects are really marvellous. He has used Dallmeyer's W.A. Landscape, the same maker's W.A. Rectilinear, Ross's Portable Symmetrical, and Steinheil's Aplanat. Three makes of plates are used, viz., Monkshoven, Wratten and Wainwright's, and Edwards' Isochromatic. Some prints are by platinotype hot-bath, which are most perfect, aristotype, and albumen. The difficulty of securing such views of mountain scenery must have been very great.

Mr. A. D. Guthrie, of Leith, deservedly takes the third prize for "Landscape, and Landscape with Figure." His subjects are all near Edinburgh, and include two views on the Almond, Cramond Bridge, Cramond Ferry, near Cramond, and at Cramond. As pure landscape it would be practically impossible to secure more perfect composition. They have all been taken with a Taylor's R.R. lens, on Verel's Matchless plates, and are printed upon the same firm's matt-surface paper, toned to a warm sepia tint, with chloroplatinite of potassium (Mr. Lyonel Clark's formula).

We are extremely pleased that the Secretary of a photographic society should take one of the Studentship prizes. Mr. Guthrie has been working very carefully, and the prize awarded him is richly deserved.

Mr. Alexander Keighley takes the next prize. Much of his work is very beautiful, and the composition exceedingly good, but two of his photographs, "The Old Lych Gate," and "Preparing the Graves," are not of equal merit with the others. All his photographs have been taken with Beck's lens on Ilford plates, developed with Beach's developer, and, with but one exception, printed in platinotype.

Mr. Martin J. Harding takes the next prize for Welsh river studies, "Llandudno Sands, late Evening," "At the Little Orme's Head," "A Shropshire Valley," and "The Brooklet." Three of the views are taken with a single lens, the others with an R.R. Thomas's and Ilford plates are



used, developed with pyro and ammonia, and printed on matt-surface albumenised paper toned with gold.

The Rev. Precentor Mann takes the sixth prize, "Old Streets in Brittany" being the best of his contributions. They have all been taken with a W. A. Optimus. The landscape with figure photographs contributed are not so successful, the views selected having far too much foliage.

We will, in a future issue, refer to the other competitors' work. Almost in all, good photographs are to be found, but the standard is not maintained all through. One competitor sent in enlargements, which we were compelled to disqualify, as we had refused to receive enlargements from several intending competitors.

The whole of the prize photographs will be loaned to photographic societies, and will form an excellent exhibition in themselves, there being some sixty or more pictures. Early application must be made, and we must impress upon secretaries and others the necessity of keeping the prints clean and handling them with care. Screens should be provided, and the photographs carefully affixed to them with drawing-pins.

We shall be glad to receive early application for these "Travelling Studentship" photographs, and hope that some societies may be able to arrange for special evenings, in order that the ground may be the more easily covered. In all cases two or three dates should be given. It is not proposed to send them out until September.

\* \* \* \*

SOME misunderstanding seems to exist in regard to the AMATEUR PHOTOGRAPHER "Monthly Photographic Competition." The awards will be published in this paper, and a brief account of the winning and a few other pictures, but a much more lengthy criticism will appear in the *Photographic Reporter*. Whenever possible the photograph which is awarded the first prize will be reproduced as a frontispiece in the *Reporter*. We have from several causes been unable to publish the awards for the June competition before, but have pleasure now in stating that for that competition we are giving a Silver and Bronze Medal each for landscape and seascape. The awards are as follows:—

#### LANDSCAPE.

*Silver Medal* . . . . Mr. J. Kidson Taylor,  
for his photograph, "On the Goyt." This picture was taken near Buxton, with a Wray's landscape lens on an Ilford plate; the print is an Eastman's bromide, developed, the competitor says, "by Hydro cum Eikon." The view is taken in a dull light, and is extremely effective; the composition is good, and all the manipulatory work has been done with great care.

#### LANDSCAPE.

*Bronze Medal* . . . . Cecil V. Shadbolt,  
for a print, also on bromide paper, of a view giving the town and lake of Thun, Switzerland. To secure this picture a Ross R.S. lens was used, a Wratten's plate, developed with pyro and ammonia. The half tones are well rendered, and the snow-capped mountain in the extreme distance is in very beautiful gradation.

Mr. F. de Paula's picture, "Evening on the River Coln," takes a high place for a well-balanced picture.

"Thames Valley, near Wargrave," by Mr. J. Harriman, is one of those charming views to be found in the Valley of the Thames; we should have liked a little more brightness in the print, but the selection is good.

"A Peep in Bolton Woods," by Mr. W. H. Scott, would have been better printed in platinotype rather than on aristotype paper. The water in the distance is extremely flat, and there is an appearance of the stream running uphill. Mr. Scott uses a 9 inch Wray lens and Ilford plates.

An excellent photograph of "Streatley Mill" is contributed by Mr. E. B. Wain, who, we are pleased to find, uses Obernetter matt-surface paper, toned in sulpho-cyanide of ammonia bath. The effect is very good.

Mr. George L. Snowball sends a view of "Jesmond Dene," printed on Eastman's bromide paper, but it lacks the beautiful gradation to be found in Mr. Shadbolt's print.

Other prints worthy of special note are, "The River Wandle, in Beddington Park," by Mr. E. F. Blow; "On the South Tyne," by Mr. Wm. R. Speirs; "After a Snowy Night, Murren," by Mr. Emile Enoch, and a view in Sokia sent us by Mr. D. Forbes.

The seascapes are not numerous, but two or three pretty little pictures are before us; the awards are as follows:

#### SEASCAPE.

*Silver Medal* . . . . Mr. A. C. Taylor.

The photograph contributed by Mr. Taylor is entitled "Trawlers, Brixham Harbour;" it is an exceedingly clever picture, and is printed on home sized and sensitised paper, toned with platinum. The paper is rough and lends itself to the subject.

#### SEASCAPE.

*Bronze Medal* . . . . Ernest Beck,

for "Evening Shadows." This photograph is taken in Whitby harbour, and is another happy picture of Mr. Beck's, taken on an Ilford red-label plate, with a Dallmeyer R.R. lens working at  $f/11$ , developed with eikonogen. The print is by the platinotype hot process. The picture is exceedingly soft, and the evening shadows very faithfully rendered.

"Low Water on the Medway," by Mr. George J. Wightman, is hardly a seascape, but would be better classed a "River Scene." It is a very effective photograph well executed, and we shall doubtless have the pleasure, at no very distant date, of awarding Mr. Wightman an AMATEUR PHOTOGRAPHER medal. "On the Blackwater, Maldon," is a good photograph by Mr. A. J. Jeffreys. The remainder do not here call for special comment. A very beautiful enlargement was contributed but could not be received in this competition.

\* \* \* \*

WE have received the prospectus of the 1890 Exhibition of the Photographic Society of Great Britain, which will be held in the Gallery of the Royal Society of Painters in Water Colours. The Exhibition will be opened as usual by a conversazione, to be held on Saturday evening, the 27th of September. The public will be admitted on Monday, the 29th September, and the Exhibition will remain open until the 12th of November. No new feature is introduced into the prospectus. We note that, notwithstanding the war that has been waged about judges, the popular vote has elected men who, with the exception of Mr. Henry Moore, A.R.A., are well known as judges of photographs, and who have all of them a sound and practical knowledge of photography. The Judges are Capt. Abney, Valentine Blanchard, W. England, J. Gale, Henry Moore, and H. P. Robinson—a most competent Board, whose awards will, we are sure, give general satisfaction.

All exhibits in packing cases must be addressed, "Photographic Society of Great Britain, care of Mr. James Bourlet, 17, Nassau Street, London, W., and must be delivered to him not later than Monday, September 15th. Exhibits may be delivered at the Gallery, Pall Mall East, up to 9 p.m. on the same day.

\* \* \* \*

A PHOTOGRAPHIC CLUB has, we understand, been started at Glenalmond, the oldest of the Scotch public schools. As the school is situated in the foothills of the Grampians, the



members have mountain, moor, loch, river, and burn scenery close at hand, as well as excellent genre studies of school and Highland life. The club has a good dark-room, which it will place at the disposal of travelling amateurs. This information will be of interest to many of our readers who contemplate a tour in Scotland.

\* \* \* \*

It is proposed to form a photographic society for Tooting and district. The preliminary meeting will be called in about a fortnight, and Mr. J. F. Child, of 22, Longley Road, Tooting Junction, S.W., will be pleased to hear from any living in the neighbourhood who may be interested in photography and who would support the formation of a society.

\* \* \* \*

As some interest is now being taken in the "sensitive-ness of plates," we are pleased to state that we shall publish an article next week having for its text the very excellent paper contributed to the Liverpool section of the Society of Chemical Industry, by Dr. F. Hurter and Mr. V. C. Driffild, entitled "A Photo-Chemical Investigation, and a New Method of Determining the Sensitiveness of Photographic Plates."

\* \* \* \*

THE Hackney Photographic Society have arranged to hold a competition of members' work; several prizes will be awarded, and Messrs. H. P. Robinson and J. Traill Taylor have consented to act as Judges.

\* \* \* \*

THE Croydon Camera Club has, from its inception, shown wonderful vigour, due in a great degree to the energy and enterprise of its founder and President, Mr. Hector S. Maclean, F.G.S. We are pleased to note that it is now proposed that the Club shall have a permanent "home," for which purpose rooms are to be taken in the centre of the town. The premises will consist of a large room, which will be used as a club-room for meetings, demonstrations, lantern exhibitions, etc. There will also be a store-room and dark-room fitted with every convenience and apparatus necessary.

We must congratulate the Club upon the very bold line they have struck out. Tourists and cyclists will be very glad to avail themselves of the privileges which it is intended to offer them; we are certain that the Club will soon have a large increase in members, and that it will, at an early date, take its position as one of the leading photographic societies.

\* \* \* \*

IN acknowledging the receipt of the *Photographic Quarterly*, the Honorary Secretary of the Birmingham Photographic Society says:—

"The coloured frontispiece is quite a novelty and well worth preserving. Everyone speaks in high terms of the get-up of the magazine, and the high-class articles written by men who are thoroughly conversant with their subjects. 'A Plea for Systematic and Associated Work in Photography' will be read with great interest by members of our Society, and others too who are taking up photographic survey work. 'The Summary of Events,' by yourself, is a capital record of what is being done quarter by quarter."

\* \* \* \*

A CORRESPONDENT, writing from Natal, South Africa, says, "I write to you as the only friend I have in the old country. I still get the AMATEUR PHOTOGRAPHER every week." This gentleman requires a really serviceable camera to use and carry when travelling on horseback. Perhaps some of our readers who have been similarly situated will give us their experiences.

## ROYAL ACADEMY.—II.

IN our issue of May 23rd we gave an introductory notice of the work exhibited this season at Burlington House: having there treated the question generally, we propose now to examine the pictures—from a photographic point of view—a little more in detail.

In Room I. the photographer will hesitate before No. 19, "The Cast Shoe," and will wonder how it could be possible for so thickly spreading a tree to throw so very little shade; it would simplify exposure considerably if trees in nature did not throw shadow. Sir J. Millais' No. 25 will naturally claim attention, but we cannot help feeling that what he has painted on his canvas successfully interprets neither the idea that he had in his mind, nor nature which ought to have prompted that idea. No. 43, "The White Mill," by David Murray, we have already noticed as one of the gems of the Exhibition. Nos. 61 and 70 are interesting. Nos. 74 and 78 are creditable portraits; and with respect to No. 81, Mr. Wyllie's "Davy Jones's Locker," although we expressed our doubts as to whether anybody could have seen the bottom of the sea as it is here portrayed, we must confess that it is a picture that grows upon us, and that it is likely enough to be a fact that the artist studied for it in a diving-bell.

In Room II., "The little Pig went to Market" (106) is a good piece of rustic cottage painting. With No. 109, "A May-day Morning," everybody will by this time be acquainted; it is a really clever picture, and cannot but raise Mr. Abbey's reputation. "After Waterloo" (123) is rather a plagiarism; Meissonier has something very like it. "Union Jack," one sailor having his arm tattooed by another, just fails to be successful; the grouping and composition leave nothing to be desired, but a little knowledge of photography would have prevented the artist perpetrating so impossible a lighting; moreover, the decks of Her Majesty's ships are not made of such rough planks as Mr. Hedley has introduced into his picture. No. 131 is one of Leader's beautiful landscapes, No. 140, by Rattray, has fine clouds and a grand stretch of sandy foreground, though perhaps the boat on the right is a little out of place.

"Our Village" (143) is characteristic, but not pleasing; it is difficult for a photographer to understand why the artist should have gone out of his way to cut his picture in halves by placing the large tree so near the centre; as it is, all unity of conception is sacrificed, and it is difficult to see what end is gained; the figures, too, are not successfully placed; the child on the left with the baby appears to be staring at a supposed camera man. With the soft and effective scheme of colour in "How the Gossip Grew" we have one of the prettiest interiors exhibited this year; notice the admirable painting of the silver tea-service. In this room is the President's "Solitude" (166), which we have mentioned in our previous article. In "Karnac" (177) the striking contrast between the sunlight and the shade, so seemingly exaggerated in Eastern climes, has been well caught.

On entering Gallery III. we have Dr. Trood's clever picture of terriers (184) and Sir J. Gilbert's "Onward" (186). "A Wind-Swept Hill" is as good and truthful a landscape as 193 is forced and unnatural; in this room are many portraits, of which some few are good, the clergy seeming to make excellent sitters. The place of honour is occupied by Frank Dicksee's "Redemption of Tannhauser," a wonderful piece of dramatic painting, and worthy of the beautiful story it illustrates. Tannhauser's attitude of supreme penitence at the bier of Elizabeth, the expression of reverent wonder and awe on the Bishop's face at the budding staff, the baleful vision of Venus floating away in a red glow visible only to Tannhauser himself,



all are admirably rendered, and dramatic without the theatrical element. Note how in "Low Tide" (215) the artist has brought his clouds much too far forward, entirely spoiling what might have been a beautiful sky. Nos. 226, 231 are worth a glance. Close by are two of the gems of the exhibition, "The Meeting of the Thames and the Isis at Dorchester," by Vicat Cole (234), and "Summer Time, Channel Islands," by Henry Moore (257), both exhibiting in a very high degree the excellence of our English landscape school. No. 270 next claims attention; it represents a sculptor at his work—a madonna and child—with his family around him, and a visitor who has dropped in to inspect his progress. The central figure looks not so much with pride at his own creation of a beautiful statue, as with reverence for what that statue represents; it is one of the best story-telling pictures shown. No. 291 is a similar class of work, undramatic, yet forcible and true. No. 300 is clever, 309 is one of Hook's best pieces, 324 is Alma Tadema's only contribution, and strikes us as being too crowded with figures. "On the North Foreland," by Orchardson (338) is original and very natural.

Coming to Room IV., No. 360 is a curious but interesting sea piece. In 361 we cannot help feeling that Sir J. Millais has failed. No. 394, "A Perilous Calling," is a really fine picture of a fishing-boat leaving harbour on a stormy night; we are left to imagine the state of the weather by the reflexion of the sky on the troubled waters; it is most skilfully rendered. 396 is pleasing, and 403 is one of the few good portraits. The glow of the fire-light in 430 is suggestive. No. 441 will please the naturalists. No. 458, in the next gallery, is another of Leader's pictures—a cloudy landscape—and is wonderfully truthful. Notice 469 and 471, also the curious effect of shifting sand in 472. "A Summer Night" (487) is a good piece of colouring, but the subject and the composition are most unhappy; the figure of at least one of the young women seems entirely out of drawing; she appears to be so alarmingly short in the legs and long in the body—moreover, there is no perspective at all in the picture. "Porlock, Somerset" (511) is a good landscape, and the treatment somewhat original.

Aumonier has a charming picture in Room VI. (524); the lighting is admirable and the distance truthfully painted; the flock of sheep in the foreground too, are very natural. Notice 540 and 544. "The Death of Cleopatra" (551) is one of the largest of this year's pictures. We cannot but admire the marvellous pains bestowed on rendering the marbles, the bronzes, the Egyptian hieroglyphics, and the clever painting of the clinging muslin robes of the women; and yet the picture does not please, because it is borne in upon us that the figures look their parts too well, and the whole composition gives us the idea of a *tableau vivant*. There is some extraordinary sky-painting in 554; and No. 581 gives us a good idea for a genre study. Notice 615, a charming Dutch study, and the clever dog picture, No. 626. The artist of No. 629 is, we are sure, indebted to photography, to some extent at least, for his capital painting of the waves breaking on the beach at Hastings. Room VII. contains Richmond's admirable portrait of the late Bishop of Durham; an interesting piece of landscape in No. 695, with a cleverly painted rainbow; a very good sketch of Taormina (No. 708) by MacWhirter—note the distance—and a clever genre picture in No. 709. No. 728 should be noticed for the admirable stormy effect produced by the painting of sea and sky.

In Room VIII. we have Mr. Hitchcock's "Tulip Culture" (750), a wonderful piece of colouring, but little else in it to render it a picture. Such a subject will not be suitable for photography until we reach the days of "photo-

graphy in natural colours," unless we adopt the chromo-collotype process so well expounded in the current number of the *Photographic Quarterly*. No. 758, "The Last Blessing," is a very touching picture, and leaves little to be desired as an interior study. No. 778 is hung too high for so well painted a picture. Nos. 785 and 793 should not be missed. No. 804, "The Young Squire," is one of the most absurd compositions exhibited. It represents a young man in a very new shooting suit about to kill something amid an admiring crowd of villagers, and is painted in the most forced and unnatural way. No. 818 is a good head of an Arab chief. No. 823 a very characteristic portrait of a Russian peasant by, Hubert Vos. There is nothing of much interest in Room IX. "Folkestone Harbour" (854) is worth a glance. Poynter's "On the Temple Steps" (866) is not pleasing. In Gallery X. we have Lady Butler's "Evicted" (993), a striking picture of a disagreeable subject, and Arthur Hacker's "Vae Victis" (1005). It is interesting to compare this last with "The Death of Cleopatra," and to notice how the artist of "Vae Victis" has avoided the *tableau vivant* error of Sir John Collier. There are one or two good portraits in this room, and No. 1022, "Poor Jack," is feelingly painted. In the last room there is a remarkable rendering of the often-painted subject of "Perseus and Andromeda" (1076), and there is another entirely good and truthful landscape by David Murray (1090), representing a flat wheat country.

Among the often neglected water colours we will just mention those pictures that are instructive, Nos. 1,200, 1,231, 1,237, 1,252, 1,262—which compares very favourably with Mr. Cooper's old-fashioned cows (869)—1,296, and, perhaps, best of all for those who appreciate the subject. No. 1,307, "The Teutonic leaving Liverpool," by Wyllie. Nos. 1,345 and 1,359 should be looked at, and then the visitor can pass into the sculpture hall and gaze at the magnificent statue of Gordon, erected to his memory by the Royal Engineers, and designed and executed by Onslow Ford—it is, perhaps, the best bronze of the century.

It is difficult in dealing with so many pictures to do more than give a list of such as may serve for the instruction and assistance of the photographer, but let me recommend any amateur who has not yet visited the Academy, to do so at his earliest opportunity. He will find much to interest him there, for notwithstanding the hosts of portraits and painted canvasses, there is much really artistic work, and the landscapes alone will well repay him his trouble.

WHAT OTHERS SAY: "The AMATEUR PHOTOGRAPHER and the QUARTERLY keep up splendidly. The latter is indeed worthy of photography."

CADOGAN STUDIOS.—Mr. Friese Greene has this week opened new premises at 162, Sloane Street, two minutes' walk from Sloane Square station. The exterior of the premises has been made very attractive, and the interior is decorated and furnished in the most artistic style. The walls of the magnificent suite of reception and dressing rooms are covered with a dark bluish-grey cloth, lightened by gold beading, whilst the ceilings are coloured a light French grey, the whole having a soothing and harmonious effect. There are to be seen some fine specimens of Mr. Friese Greene's work, both direct photographs and enlargements, and we were shown a couple of 12 by 10 opals, on one of which he had printed a copy of a photograph of the discharge from the negative pole of an electric machine, and on the other the discharge from the positive pole. They are good prints, and show the most remarkable difference between the two. Mr. Friese Greene also printed and developed a specimen of his new sensitised opal cards. They are easy of manipulation, and good results are certain when a good negative is used. Mr. Greene is to be congratulated on the acquisition of such commodious and convenient premises in so accessible a position.



## Letters to the Editor.

### THE KODAK.

SIR,—At the risk of imposing upon your good nature, I beg leave to reply to Mr. Norris, who, in his last communication, takes exception to my criticisms which appeared in your issue of May 30th, and indicates therein that I have treated him discourteously. In my letter referred to I made several accusations, substantially as follows:—

1. That at the time Mr. Norris made the statement that the No. 1 Kodak lens cost only sixpence he did not know what the construction of the lens was.

2. He considered the mere fact of a non-achromatic photographic objective working at fixed focus a vital fault.

3. That he had no compunction of conscience or considerations of ordinary fairness to prevent him from making a deliberate misstatement concerning the cost of an article of which he was absolutely ignorant.

These, I presume, are the causes of Mr. Norris's wounded feelings, and if I had not had letters from Mr. Norris in my possession clearly proving the truth of the statements objected to, I certainly should never have expressed myself so strongly. I therefore beg to call your attention to the following letters, which were written *previous* to the published correspondence:—

115, Oxford Street.

SIR,—We notice that there has been considerable correspondence in the AMATEUR PHOTOGRAPHER based, as we understand, on a communication from you to the effect that the first cost of the Kodak lens is but sixpence. As this statement has caused considerable comment, and as it would result in doing damage to our business, we should esteem it a favour if you would kindly inform us whether you made this statement, and if so, upon what grounds. We need hardly say that we consider that you are misreported.—Yours truly,

THE EASTMAN PHOTOGRAPHIC MATERIALS CO., LIM.

F. T. Norris, Esq.

82, St. Thomas Road, Finsbury Park,  
May 5th, 1890.

Dear Sirs,—In reply to yours of the 18th inst., referring to some reputed statements of mine about the Kodak cameras, I shall be glad if you will inform me whether you are prepared to say that the first (No. 1) Kodaks are, or at any rate were, not fitted with a simple non-achromatic lens. On your favouring me with an answer to this, I shall have pleasure in informing you the grounds on which any statements of mine may have been based.—I am, dear sirs, yours truly,

F. T. NORRIS.

115, Oxford Street, W.

Dear Sir,—Thanking you for your favour of the 14th inst., we beg to say that you quite evade the point by asking the question whether we are prepared to say that the No. 1 Kodak was or is fitted with a simple non-achromatic lens. As the lens of the No. 1 Kodak is worked at fixed focus, it is quite immaterial whether it is achromatic or non-achromatic.

Our question is a simple one. Do you admit or deny having stated substantially that the Kodak was fitted with a lens costing only sixpence? If you did, we must assume that you have inadvertently made a statement which is not in accordance with facts—a statement which, much to our surprise, has done, and is doing, the business of this Company no little damage, as the natural inference of the average purchaser would be, and is, that a lens costing only sixpence could not by any possibility make good pictures. To show you how very misleading the statement attributed to you is, we will state that all the lenses supplied with the No. 1 Kodaks are, and always have consisted, of *two* periscopic lenses of unusually deep curves, which latter fact would of itself increase their cost immensely.

Having now fully called your attention to the facts, we trust that you will have the courtesy to kindly send us for publication a suitable retraction, as we are quite sure you did not intend to intentionally misrepresent the facts or intend to injure the business of this Company.—Yours truly,

THE EASTMAN PHOTOGRAPHIC MATERIALS CO., LIM.

F. T. Norris, Esq.

Any unbiassed reader will see from these letters that I extended every possible courtesy to Mr. Norris, both my letters being written upon the assumption that he was either misreported or *misinformed*, and the only return I received for them

was his still more absurd statement, published in your columns, that the lenses could be purchased not for *sixpence*, but for *three pence*.

Mr. Norris's letter, as given above, proves all three of my accusations.

1. He did *not* know the construction of the lens.
2. He did *not* know that an achromatic lens was unnecessary.
3. He *had* no compunctions of conscience or considerations of ordinary fairness to prevent him from making a deliberate misstatement, for before I had written the criticisms he takes exception to, he had received my letter, and had been informed of the true character of the construction of the lens, which should have been sufficient, if he had any practical knowledge of optics, to prevent him from saying, as he did, that such a lens could be purchased at the absurd price of threepence. Mr. Norris says he will not descend to details with me. Very well; then he must be judged by his own letters; and as for his ignoring my proposition to receive 1,000 pairs of lenses at threepence, or even sixpence—his original price—I know of no more practical and straightforward way of testing his sincerity than to give him the opportunity of making 100 per cent. profit upon every pair of lenses delivered. My challenge was not "over-weighted with any preliminary work," as the lenses are of no value whatever to anybody until they are brought to a standard diameter to fit the tube they are intended to be used in; and, to still further test his sincerity, I will *again* increase my offer for the 1,000 pairs of lenses to *ninepence* a pair.

But, seriously, is Mr. Norris wholly to blame in this matter? I confess I should be glad to think that he is not. I have taken him seriously at his word, as his statements were made as from *personal knowledge*, especially as he stated that they had been the result of special investigation. I think the true solution of his position is to be found in the fact that he relied upon information furnished him by some other person, whom he has no doubt discovered ere this is a man of straw. Query: Who is he?

And now for "Newcastle," who has distinguished himself in your issue of July 4th by a series of quotations and interpretations which do great credit to his ingenuity. His argument that Mr. Norris is a *buyer* of lenses and not a seller is the very essence of weakness. What earthly difference does it make to Mr. Norris, providing he can demonstrate by his actions that he is right and I am wrong, and make me at the same time pay dearly for it out of pocket?

I have not read the article purporting to be from the *British Journal Almanac* for 1889, page 579, nor do I consider it necessary or relative to this discussion. That good negatives may be made (under certain conditions) with very simple and inexpensive lenses, is a fact too well known to require refutation, and certainly Sir David Salomons would hardly support the interpretation that "Newcastle" has placed upon the extract given. For the present, I will ask you to kindly publish the following letter from Mr. J. Traill Taylor, the editor of *The British Journal of Photography*, which he has kindly written me in answer to my request that he should explain his position. It will enable your readers to see the utter absurdity of misconstruing the evident meaning of printed documents, and it answers, at the same time, "Newcastle's" last question regarding the rectilinear lenses of the Kodak. I need hardly add that the No. 4 Kodak lens represents faithfully the construction and properties of all the other lenses used in the Kodaks, with the exception of that used in the No. 1 Kodak, which was the original subject of this discussion.

Nithsdale, Wood Green, July 5th, 1890.

My dear Walker,—Herewith I return the No. 4 Kodak lens, which I have examined. I find it to be neither better nor worse than the average productions of our best English makers. The lenses are achromatised on the Gauss principle, first applied to landscape lenses by the late Mr. Grubb, F.R.S., and, subsequently, to quick-acting symmetrical rectilinear combinations by Dr. Steinheil. It is this form, now used by all opticians for that class of objective, that, when made of dense glass, gives it such rapidity of action, coupled with good covering power and rectilinearity.

The mounting and exposing mechanism of the lens is a marvellous piece of workmanship, which must of necessity have cost the inventor many an aching head ere it was completed; and you must surely make them in vast quantities at a time in order to be able to sell them with the Kodaks at the price you do.

Thanks for cuttings, from which I perceive I am quoted as



having said that it is possible to purchase lenses at twopence each by which photographs can be taken. Quite correct. There is no spectacle lens (and I was speaking of them) so vile but what a photograph of a certain sort can be taken by its agency. But why expend even twopence on a lens when anyone who, from ignorance, parsimony, or poverty, is desirous of practising the most straight-laced economy can take a photograph, such as it is, without any lens at all, by simply making a pinhole in a piece of opaque paper! The logic involved in the question of relative cost is simply delicious. A spectacle glass can be bought for twopence or even sixpence, and, therefore, a properly constructed photographic lens should cost no more! In the window of a stationer's shop I saw, the other day, a card on which were stitched a dozen "Mammoth microscopes," price one penny each. I bought one, and find it has a real lens, which magnifies considerably. Now, by parity of reasoning, what is to prevent some wiseacre from writing to the microscopic journals and denouncing the scientific opticians who catalogue their microscopes at from three to a hundred guineas? or, to carry still further the *reductio ad absurdum*, because a telescope, warranted to show the mountains in the moon, can be bought for ten or a dozen shillings, therefore the Americans were very badly victimised by the opticians, who made them pay some thousands of pounds for their world-renowned Lick telescope?

With respect to the lens of your No. 1 or small Kodak, do you know its history? If not, I will give it to you. Some years ago (1865) Prof. Steinheil, of Munich, invented and patented it. It was manufactured by Voigtlander, and sold under the name of the periscop, from the periscopic form of its two lenses. It was rectilinear and covered a prodigious field sharp to the edge. I once had a thirty-two inch photograph which was taken by a periscop of sixteen inches focus. The lenses were thin, obstructed no light, and gave a bright image without flare or ghost-spot. It proved a puzzle to many how a combination formed of only one kind of glass (crown) could give an image in which the chemical and visual foci were practically coincident; but, in course of an article I wrote at the period, I demonstrated by a diagram how it was effected. This lens was not manufactured by either of the two leading London makers—first, because it was patented; and, secondly, each was pushing a rival production of his own. It is from an examination of a mall or No. 1 Kodak lens, at one time in my possession, that I perceive it to be a resuscitation of Steinheil's once famous periscop, although, owing to recent improvements in the manufacture of optical glass, it surpasses its progenitor in rapidity of working, without losing, so far as I can see, its other good properties.

The principle of obtaining achromatism by two single lenses—*non-achromatic, per se*—does not appear to be generally understood; but a good practical demonstration of its reality may be had by every one in the reversing glasses situated in the lower end of the terrestrial eyepiece of every pocket achromatic telescope.—Yours faithfully,

J. TRAILL TAYLOR.

W. H. Walker, Esq.

Those who care to go more carefully into the optics of meniscus or periscopic lenses I am pleased to refer to Mr. Taylor's very lucid description, entitled "The Steinheil's Periscop Lens," in the *British Journal of Photography*, December 8th, 1865.—Yours truly,

W. H. WALKER.

SIR,—In the letter headed "The Kodak," and signed "Newcastle," which appeared in your number for July 4th, it might seem that I am able to purchase photographic lenses at the rate of from one penny to twopence each; whereas, if the whole of the article had been read, from which the quotation in this letter was given, it would have been found that these are not photographic lenses at all, but merely common glasses, such as spectacle lenses, to be employed for comparative tests.—Yours very truly,

DAVID SALOMONS.

49, Grosvenor Street, July 12th, 1890.

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#### LENS SCREWS.

SIR,—There is one point which I have not seen noticed in recent discussions. I have sometimes found in removing a lens from the camera that the back combination has left the mount and remained fixed in the flange. Owing to the small hold for the fingers there is some difficulty in getting it out. This would be obviated if the screws of the lens mount and the flange were turned in opposite directions.

I wonder also that nothing has been said about facilitating the

fixing and removing of lenses by something in the nature of a bayonet joint.—Yours truly,

CLIFFORD E. F. NASH.

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#### LLANFAIRFECHAN.

SIR,—Thank you very much for the answers. I applied to Mr. Thomas, and he allows me to develop in his dark-room. I use my own developer, and he supplies dishes, measuring glasses, and hypo and alum. I wrote in the interests of amateurs who might be visiting Llanfairfechan, and I thought it would be an advantage to have the dark-room on the list. This is a good central place, I think, for photographing. It is pretty in itself. It is eight miles by train from Bangor and about the same from Conway. Bethesda via Bangor, with its huge slate quarries, is well worth a visit. The head man at the quarries told me photographs may be taken of the quarry. Bettwy-y-Coed can be reached via Conway. Penmaenmawr, three miles away, is pretty and has a Druid's circle.

For leave to photograph the interior of Bangor Cathedral, apply to the vergor, Bangor Cathedral. He said it was best to let him know by post, and he would say what time would be convenient, on account of services.

I mention these facts because there are generally so many inquiries in the AMATEUR PHOTOGRAPHER as to leave to photograph cathedrals. Aber, with its waterfall, is not far from Llanfairfechan—three miles to the village and two more to the waterfall.

I hope the information about places here which I have given may be of use. The Fairy Glen, Penmaenmawr, is well worth a visit.—I remain, yours truly,

W.

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#### "F. G. S." AND THE CONVENTION.

SIR,—I have read Mr. Pringle's letter in your last issue, *re* the above, as also the paper in question, and must say that "F. G. S.'s" description conveys the same impression to my mind as I received from reading the paper. Moreover, shortly after the Convention, I was staying with some friends, who live in the neighbourhood of Chester, and their account of Mr. Newman's paper exactly tallied with "F. G. S.'s" description, that it "was simply a savage personal attack on Dr. Emerson." I write this to you to confute Mr. Pringle's remark that "his next assault is much more tangible, and conveys to your readers a completely false impression." This is Mr. Pringle's idea; my idea is that it does not. Unfortunately, there are not very many readers of the AMATEUR PHOTOGRAPHER such past masters in photographic art as Mr. Pringle. There are far more like myself—photographic dabblers,—so I hold that Mr. Pringle represents less readers than myself, which opinion is confirmed to a great extent by the independent criticism I have above quoted of other photographic dabblers. What the fact of Mr. Newman not knowing Dr. Emerson to be a doctor has to do with the question, I fail to see.

Will the era ever come, do you think, when, on the occasions we rush into print to say that we differ from some one else, we shall be able to say so without calling up our reserves of sarcasm?—Yours, etc.,

July 11th, 1890.

ONE OF HOI POLLOI.

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#### DARK-ROOMS.

SIR,—As I am the person who gave Mr. F. A. Robinson the information *re* dark-room at the Lizard, I should like with your permission to say a few words in reply to his letter which appeared in last week's AMATEUR PHOTOGRAPHER. First, Mr. Robinson says I told him there was a dark-room at one of the hotels at the Lizard, but I was unable to tell him which one. At the same time I said that if he looked at the C. T. C.'s list of hotels he would find which one it was at. I believe I got the information that there was a dark-room at the Lizard from the pages of the AMATEUR PHOTOGRAPHER some three years ago. Of course Mr. Robinson did not look at the list, and has suffered, so he says, great inconvenience, which, I think, is entirely his own fault. Secondly, he says that, relying on my reply, he did not bring any chemicals with him, as he expected to find them on the spot. Mr. Robinson was not warranted in supposing from my reply to his query that he could obtain chemicals, etc., at the Lizard, a place where the number of houses could be counted almost on one's fingers. I hope next time Mr. Robinson's goes on a tour he will



take the necessary photo apparatus and chemicals for developing with him, and not blame any person for his own stupidity. Trusting you will in fairness to me insert this in your next issue, I remain, yours, etc.,  
H. TONKIN.  
July 13th, 1890.

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### THE ACTION OF LIGHT UPON THE SENSITIVE PLATE.

SIR,—In our letter published in this week's AMATEUR PHOTOGRAPHER, your printer has completely misrepresented what we said by omitting the word "not" from our last sentence. This sentence should have run, "While we agree with you that it is probable the semi-opacity of the celluloid may conduce to rapidity, it is clear the speed of Anthony's films is NOT necessarily due to this celluloid basis, as in the case of Cramer's plates the basis is, of course, glass."

We note in Mr. Pringle's letter headed "F. G. S. and the Convention," that he speaks in a credulous, not to say a sneering tone, of a plate being estimated by us as 314 times the speed of a wet plate. We do not believe that since the publication of our paper on "Photo-Chemical Investigations," Mr. Pringle can possibly have grasped the scope and results of experimental work extending over many years, and in a totally new direction. We should, therefore, recommend him to suspend his judgment for the present, and we have little doubt he will eventually see in our method of speed determination, or in some modification of it, the only true and satisfactory solution of the problem how to ascertain and compare the speeds of plates. As experimentalist to an important firm of dry plate manufacturers, we should have thought Mr. Pringle would have been interested in any attempt to improve the present most unsatisfactory method of testing plates.

We may add that a firm of Continental plate makers who have hitherto relied upon the camera test rather than adopt Warnerke's arbitrary and indecisive system, are so far satisfied with our method as to have expressed to us their desire to adopt it and to label their packets of plates accordingly.—Yours truly,  
July 12th, 1890. HURTER AND DRIFFIELD.

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### CHANGING BAG.

SIR,—With regard to the very simple, and therefore, I may probably say, effective changing bag recommended by Miss E. B. Brown in your last number, I should like to point out that nearly all makers of dry plates practise an unvarying order in the several methods in which they pack their plates. The Ilford plates, *e.g.*, are always packed film to film, and if this fact is once grasped, a light is never necessary in changing plates, nor need they be previously unpacked for the purpose of affixing the gummed paper as suggested, and what is perhaps more important still, the sense of touch with its attendant risk of contaminating the film may be entirely avoided.—Yours faithfully,  
July 12th, 1890. A. BROOKER.

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### CHEMICALLY HARMLESS PAPER.

SIR,—The letter from Lieut.-Col. Verney, in your last issue, may unintentionally do my firm (Geo. Wheeler and Co., Manchester) an injury. We advertise and sell what we term a "negative preservative paper" for placing between negatives, but he cannot refer to our paper, because we only put it upon the market at the end of last year, whereas the paper he used was taken to India in "October, 1888." I do not know that any other firm is or has been offering a paper for this purpose, and I think you will agree that this caution ought not to go forth to our disadvantage.

Over two months ago I went to Holland with my camera, and as I backed my plates I used our "preservative paper" between each. After they had been exposed I repacked them in like manner in the plate boxes. I have not yet developed them all, but those that have undergone that operation do not show a trace of grain, and are as perfect as the day they came from the plate makers, so far as the face of the film is concerned. Those who have used the paper know that it has a soft silky surface, and not at all likely to mark the films. The material has been submitted to a variety of tests by skilled practitioners, and been pronounced "chemically pure."—I am, yours, etc.,  
GEO. WHEELER.

### DECOUDUN'S PHOTOMETER.

SIR,—In the AMATEUR PHOTOGRAPHER of 13th June, I noticed a letter from Mr. C. W. Corbishley, offering to tell how to use Decoudun's photometer. As I have seen nothing further on the subject, I write to ask if Mr. Corbishley will favour your readers with his method of using the instrument, as I am sure many besides the writer would be glad to know how to obtain a reliable exposure with it.

### PHOTOGRAPHERS' CLOCK.

In the AMATEUR PHOTOGRAPHER of May 24th, 1889, "Silverpen" gives a "photographers' clock." Would he kindly explain more fully how he uses the table giving the hours of sunrise and sunset.—Yours faithfully,  
July 13th, 1890. MUWA.

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### OBERNETTER FILMS.

SIR,—In your article on the "New Gelatine Films" you speak of Obernetter's films. This is so far correct, as the films are coated with the well-known "Obernetter emulsion." The support, however, that is the films proper, are entirely the make of Otto Perutz, of Munich, who also does the coating both of plates and films with the said emulsion.—I am, etc.,  
London, July 9th, 1890. J. R. GOTZ.

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### BUYER AND SELLER.

SIR,—Seeing "Captain Cuttle's" letter in your journal, I should like to add my experience, as it may save some brother photographer from practising an economy that he might find expensive after a time. Some three years ago, wanting a camera, I bought a 15 by 12 from a well-known London house, paying £21, less 10 per cent., for it and its three slides. I used it for some years, always with the greatest satisfaction, but at last got tired of working large plates, when I advertised it for sale in one of the photographic journals, and being in first-class condition I sold it for only £2 less than its original cost to me.

On the other hand, a fellow photographer looked at a similar apparatus to mine, and also one at another first-rate establishment where the price asked was only about two-thirds of what I paid, and being unable to discern any difference between the two cameras, he bought the cheaper; but in his first summer's outing, the joints of the dark-slides started, the camera base twisted so that it became practicably unworkable, and he was glad to sell it towards the end of the season for about one-third of its cost to him.

Perhaps "Captain Cuttle" may live long enough to find his £14 camera was as cheap as the £8 10s. one.—Yours truly,  
July 7th, 1890. EXPERIENCED AMATEUR.

## Hints for Beginners.—II.

By C. LYON.

### HINTS ON WORKING UP BAD NEGATIVES, AND SILVER PRINTING FOR BEGINNERS.

PRINTING is quite an art in itself, and though not difficult, it demands as much care and attention to matters of detail as negative taking. Beginners more often fail in printing from their negatives than in taking them, and in the end give up printing in disgust and send their plates to be printed from by a professional. This is to be regretted, as the process of printing is quite as interesting in its way as that of taking the picture, and the perfect silver print, when mounted and framed, is one of the most beautiful objects the amateur can produce.

First-rate prints can only be got from first-rate negatives, but very fair prints can often be obtained by the exercise of a little ingenuity from indifferent negatives. Of course, if you have taken an unsatisfactory negative and can take another one, it is much better to do so than to try to improve the first; but if you are unable to take a second, then you must do the best you can with the one you have.



If you have been away on a holiday with your camera you are sure to have brought back a number of pictures, some of which will be good, and others more or less bad. Most probably among the latter set will be some of your most interesting pictures. You cannot take them again, and so you must make the most of what you have got. The question then is: How are you to manipulate them so as to obtain the best results? and I am now going to give you a few hints on the subject.

Your bad negatives can probably be classified under four heads. (1) Those that are fogged; (2) those that are under-exposed; (3) those which are over-exposed (and these will probably be the most numerous); and (4) those that are marked or scratched, stained or pinholed.

There may be others bad, such as those out of focus, or with double lines caused by a vibration of the camera, but as they are hopelessly spoilt, I do not include them in the above list, which consists of negatives which are, or may be made into, printable views.

Before proceeding to work up your indifferent negatives, you should print a copy of each, which should be toned and fixed with your other pictures. You will then be able to see exactly what you can do to improve it, and with the print before you you can set to work on the negative.

*Fogged Negatives.*—If the negative has been developed with the pyro developer, and is only slightly fogged, it may be improved by flooding it with one of the clearing solutions. That recommended by Captain Abney, and consisting of a couple of drops of pure hydrochloric acid to an ounce of water, is a good one. It should be applied after the negative has been fixed and thoroughly washed. Slight intensification may be advisable after the negative has been again thoroughly washed. Prints from fogged negatives are generally flat, the shadows are veiled, and the high lights lost. They will be much improved by painting out the light parts on the back of the negative, or varnishing them with retouching varnish and working out the high lights with a pencil. A little practice is necessary to obtain the best results; but as retouching is most useful, I strongly advise all amateurs to try their hand at it. If the amateur sensitises his own paper, which is not difficult, and is more economical in the long run than buying it ready sensitised, he should use a strong bath for the paper on which these negatives are to be printed. The printing should take place in a weak light, and they are sometimes improved by having a sheet of white tissue paper laid over the frame to modify the light. The strength of the nitrate of silver bath for sensitising the paper for thin negatives may vary from fifty to eighty (and even more) grains to the ounce, taking care always to use the strongest bath for the flattest, *i.e.*, weakest negatives, and always to print in the shade. Ordinary pencils will do for retouching, though special retouching pencils are sold. Pencils with a "gritty" lead should be avoided, as they are apt to scratch the film. A B and BB pencil will be the most useful. If only a slight effect is required, an FB will answer. If the negative is to be stopped out with paint, water-colours in cakes (not moist colours) should be used. The best colours I find are crimson lake and indigo, and sometimes vermilion. Black varnish is handy if it is necessary to stop out the sky or block out pinholes or scratches.

*Under-exposed Negatives* are generally forced out in the developing, and give black and white, that is to say, hard prints. The dark parts, such as foliage, the shady side of buildings, etc., should be backed or shaded with the pencil, so that the printing may be carried further, and the harshness of the whites softened down. In some cases they may be improved by having the high lights *very slightly* shaded

or veiled by exposing the print for a second or two to the light after removing it from the frame. Instead of backing the negative, cutting out paper masks of the shape of the dark parts, and laying them on the back of the negative, so as to retard the printing of those parts, while the light parts are being forced out, is a very effective plan. Some photographers recommend cutting the masks out of tissue paper, but I find it simpler to print a copy of the picture and cut out the dark parts from it. These form first-rate masks, and if moistened will lie flat on the back of the negative, and not blow away. Of course they are only left on for a short time. The print must be looked at frequently to see when it is necessary to remove them. I find the best way is to start printing with them on, as it is then easy to put them exactly in the right place, and to remove them when the other parts of the picture are well out. One or more of them can be put on again at any time if thought advisable. The frame should be laid horizontally in the shade, or, if put in the sun, it must be kept moving or hard lines will be the result. If, as is almost invariably the case in hard negatives, the sky prints white, clouds should be printed in. This is done by putting the picture on to a cloud negative, and masking all except the sky, which is then exposed to the light, as in the first instance. The mask should be kept moving slightly until the clouds are sufficiently printed, and care must be taken not to over-print them. It is always better to have them too faint than too conspicuous.

*Over-exposed Negatives* require intensifying, and this is often sufficient to make them yield excellent prints. It is said that intensified negatives are not permanent, and this is the chief objection to the use of intensifiers. I am inclined to think that a thorough washing both before and after intensifying would greatly retard if it did not entirely prevent their fading. All negatives that are stored away should be examined from time to time, and any that appear to be fading can be immediately reproduced, if the negatives are of sufficient value. In intensifying a negative care should be taken not to overdo it. An over-intensified negative is so dense that it may take hours to print, and generally requires to be reduced.

When the sky prints too dark it should be kept back by masking. It will be an improvement if clouds are painted in on the back of the negative, using for the purpose crimson lake and vermilion, the general form of the clouds being worked out with the former, and the high lights and edges touched up here and there with the latter. The sky must be faintly printed, otherwise the clouds will look like blotches of white, and will be worse than the natural sky. The depth to which they are printed is of course determined by the time the mask is kept on, and while the printing is proceeding the picture must be frequently looked at to make sure that the mask is neither too low down nor too high up. If it has been wrongly placed, and it is not altered soon, there will be a mark in the print which cannot be got rid of; but with careful watching there is no chance of spoiling the print in this way.

*Scratches, pinholes, etc.*, are easily stopped out in the sky with black varnish; clouds can then be worked in over them, care being taken to design the clouds so that the whitest parts may cover them. Marks on the picture itself must be carefully stopped out with a pencil; when they cross a dark part of the picture they should be left, as they will be scarcely noticed, and trying to stop them out would probably make them more conspicuous. A cracked negative should be treated in the same way. Very often the film remains intact after the glass is broken, and care should be taken not to sever it. The crack will not show in the print when the film is uninjured, if the frame is frequently



turned so as to change the angle at which the light falls upon the back of the negative. If placed in the sun the frame must be kept moving.

All negatives should be dusted on the face, and the backs cleaned before they are printed from. The film must, of course, be perfectly dry, and so must the paper. They must be kept from the damp while printing, or the paper will be apt to stick to them. Hard dense negatives may be printed on paper sensitised in a weak bath, and should be exposed to the sun, which seems to bring out the detail in the light parts.

The faster a picture prints the more it will lose in depth in the finishing processes, and the darker it must therefore be printed. Sun-printed pictures should consequently be darker printed than the same pictures printed in the shade. Negatives that are backed or re-touched should never be printed in the sun, as the backing or re-touching is almost certain to show if they are, unless the frame is kept moving all the time.

I will conclude this paper with a few remarks on *toning*, *fixing*, and *washing* the prints.

As a rule the less a picture is printed the less toning it will take. It is very easy to over-tone a palely-printed picture, and when over-toned it will be "muggy," wanting in sharpness, and a bad colour. It will, in fact, have a "veiled" or fogged appearance which cannot be removed afterwards. It is always better to under-tone pictures than to over-tone them. Prints will not tone well if the deepest shadows are not of a bronzed, black appearance; this explains why thin negatives never give good prints. The printing must be carried to a certain point, and this cannot be done in the case of weak negatives, or the high lights would be lost, and the picture would have no detail in the dark parts. Intensifying the negative generally enables one to print from it to the required depth. Anyone can try the experiment of printing three or four copies of a different depth from the same negative and toning them together. He will soon see how comparatively quickly the pale prints tone. If he takes one out of the toning bath before it is quite as much toned as he would like, and lets the others tone on, he will find how very superior the former will be to the latter when finished. Some experience is necessary to enable one to say when a print is sufficiently toned; prints go on toning *slightly* after they have been removed from the toning bath, and allowance must be made for this, especially if a number of prints are left together in a small quantity of water for some time before being fixed.

The proportion of gold in the toning bath is for most papers, 1 grain for the equivalent of each sheet of paper, or about six full plate (or twenty-four to thirty quarter plate prints) and at least this amount should be allowed. It does not do to stint the gold, in fact, it is always better to allow too much than too little. When there is a paucity of gold, the prints tone slowly (sometimes very slowly) and never get quite so pleasing a tint as those which tone fairly quickly. It is impossible to say which toning bath is the best. Some papers tone best with one kind some with another; for home-sensitised papers I am inclined to think an old acetate bath will be found the most reliable. But whatever bath is used care must be taken not to contaminate it with hypo. If it gets the slightest trace of hypo it will not tone at all, and any prints which may be in it at the time will be wasted.

In the fixing bath, the prints should be well covered with the hypo solution, and a good large, deep dish should be used. The prints ought always to be washed after toning, and before they are put into the fixing bath. They should be frequently moved, and the lower ones brought to the top while in the fixing bath. It is not advisable to use too

strong a solution of hypo, but if a great many prints are to be fixed it would be as well to use a fresh solution after a certain number have been fixed. When they are to be removed from the hypo, take each one out separately, let it drain, and put it into a large tray or dish of water, use one hand for taking them out of the hypo and the other for pressing them under the water, by this means less hypo will be carried over into the water.

The best way of washing them would be in a gently flowing stream of water, such as a brook; but this, unfortunately, is very seldom available, so that we must have recourse to some form of washer, of which there are many in the market. They should be kept moving or moved at regular intervals, as this prevents them from lying in a heap at the bottom of the washer. The great thing is to get a good supply of water to each print to soak out and carry off the hypo. I am not an advocate for prolonged washing. Prints can be well washed in six hours, and should never be left more than twelve hours in the water. A longer soaking destroys the brilliancy of the paper, and in fact spoils them. To those who do not mind taking a little trouble I can recommend the following plan which will, I believe, eliminate the hypo as thoroughly as it is possible to eliminate it, and has the further advantage of economising time and water. Put them into any washer you please, leave them in it about three hours, of course with the water running through all the time, and then remove them one by one with clean hands, and put them between sheets of pink blotting paper to remove the surface water. Have a large dish or another washer ready, full of hot water, and put them as quickly as possible into it. Move them about in it, and leave them in a few minutes while you are washing out, and if possible drying with a clean cloth the first washer. Fill it up with water, either cold or hot; and return the prints to it one by one as before, and letting each drain well as you remove it. Leave them in the washer with a good flow of water running through for an hour or so, and then take them out; place between *fresh* sheets of pink blotting paper until all are removed, and finally hang them up or lay them out to dry. The hot water will redden them slightly, but they will regain their colour later on. I believe hot water to be one of the best and simplest of hypo eliminators, but of course it could not be used for gelatine plates. When the prints are dry and before they get "crisp" they should be rolled one after another, face outwards, on a glass rod or stick. This gives them a nice gloss and is the best way of keeping them. If they are to be sent by post wrap some stout paper round the roll, leave the ends open and let them project about half an inch beyond the photos, and you can send them without risk of injury by book post to almost any part of the world.

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THE GUINEA CAMERA, manufactured by Mr. Walter Griffiths, Highgate Square, Birmingham, is a compact instrument, covered with American leather, and carries three double-backs of novel shape. The lens is fairly rapid, and is worked with a rebounding shutter, and good results can be obtained with it. The camera is light and unobtrusive, and is well made for the money. It is very justly called the "Companion to the Lantern."

SAD DEATH OF AN AMATEUR PHOTOGRAPHER.—Last week an inquest was held at Ingleton upon the body of Mr. Payne, headmaster of Harrington School, near Preston. He had gone to Ingleton for his holidays with his wife and daughter. He went alone to Beazley Fells to take photographs, and in attempting to get to a rugged place by the river side to get a view of the rustic bridge, he fell on to the rocks below, and was killed on the spot. When found by an excursionist, there was a dreadful cut on the forehead. The jury returned a verdict of "Accidentally killed." His camera was lying beside him.



## Photographic References.

By MAJOR J. FORTUNÉ NOTT.

### THE DARK-ROOM.

(Continued from page 454, vol. xi.)

THE "Dark-room," it is as well to state for the benefit of any readers who have not yet embarked in the photographic art, is the room in which a photographer has to work when in any way it is necessary to directly handle or manipulate plates or materials sensitive to the actinic rays of light. The name, however, is a misnomer, for the room is not of necessity "dark" in the ordinary meaning of the word, but it may be, and in fact should be, well illuminated. The quality of the light admitted for this purpose, however, is a matter of the utmost importance, under some conditions its correct regulation being vital in the creation of a negative. This subject of light is therefore one to which considerable attention should be paid, and the advice is given to an amateur about to start on his photographic career to make it a point to study the subject in all its bearings for a thorough appreciation of the principles underlying the matter, and some knowledge of the effects created by faulty lighting, or we should say of the advantages gained by correct lighting, will be of the very greatest service to him. It will also enable him when away from home to overcome obstacles and difficulties in the way of devising makeshift places wherein plates can be changed or developed with safety, which would otherwise appear to be completely insurmountable.

It is only in very exceptional cases that an amateur photographer is in the position to build a special room suitable for his requirements; the majority have to utilise any available room that can be spared for the purpose, and by the exercise of their own ingenuity adapt it as well as possible to the supplying of their wants. It would be useless therefore for photographers of this class to be given plans showing what a perfect dark-room should be, or to be given lists of appliances that tend to make that extremely rarely to be found possession—an ideal photographic laboratory. There are some requirements, however, everyone who desires to work with comfort should make every endeavour to obtain, and these we purpose enumerating.

One of the most necessary features of the "dark-room" is perfect ventilation. As a rule the room selected for this purpose is a small one, and as the doors or windows have not only to be kept closed, but all the crevices through which any outside white light could enter, have to be stopped up, it frequently happens that the operator finds when making any prolonged use of the room that all fresh air has been excluded as well as light. Under such conditions the air soon gets vitiated, and the photographer himself becomes unfit to give the patient care or exercise that judgment which is essential in skilful development, for a feeling of weariness sets in, which is absolutely deterring to its employment. Moreover, many of the chemicals employed by photographers exhale fumes of which a prolonged breathing might under certain conditions produce pernicious effects on the system. Again, if the light being employed is of an artificial character in the room itself, the oxygen of the atmosphere is soon consumed, and heat is created to a degree that may produce serious "frilling." The necessity, from every point of view, for some device being employed to give good ventilation is, therefore, easily understood when these facts are taken into consideration. If the room has a window communicating directly with the exterior of the house, the exercise of a very little ingenuity can soon supply the means to keep the air constantly changing. A few bent metal tubes can on a pinch be inserted in the

frames, or the window can be partly opened and the aperture closed with a ventilator which any plumber or carpenter could very soon construct. At any rate, on no account whatever should the subject fail to receive attention.

Another essential qualification for a dark-room is that it should possess a good supply of water. In many cases this difficulty is easily overcome by employing a plumber, and the comfort that ensues from having the water laid on in the room in a manner convenient for his purpose, soon recompenses the photographer for any small outlay incurred under this head. As a temporary arrangement, of course, water can be utilised from large jugs or a bath, but in a room designed for any permanent occupation as a "dark-room," this makeshift manner of supplying an element which should be used in an unstinted manner is most certainly not to be recommended.

Certain manufacturers of photographic appliances now sell a very useful, compact, and complete piece of apparatus which is known as "a dark-room developing sink." If the small expense involved in the purchase of this most handy adjunct to a dark-room is not objected to, the purchaser will find that its conveniences are so manifold and the facilities in developing are so increased by its use as to supply him with an ample return for his money.

The article referred to comprises a stand or developing table, beneath which are shelves or racks designed for dishes of various sizes. At a convenient height a developing sink with all its requirements is supplied, with a moveable rose-tap for washing purposes, and another one more suitable for filling bottles or mixing developers. The tables on either side of the sink are so constructed as to drain off any fluid spilt upon them into the waste-pipe, and the upper part of this handy contrivance is provided with a set of shelves whereon the various bottles, measuring glasses, and other articles that may be required during development can be placed so as to be ready to hand immediately they are wanted. It will therefore be seen that the possession of one of these specially constructed appliances is a boon to neat workers who can appreciate the cleanliness and comfort to be derived from its conveniences.

The next matter that will require attention is to obtain suitable lighting. The best manner possible is to employ daylight filtered through correctly coloured glasses or through glass to which some non-actinic medium has been attached. For this purpose the window itself can easily be utilised. The colours that are available are red, yellow, and green, but not all reds, yellows, or greens, for certain shades of these colours may under certain conditions become unsafe by admitting rays that might veil or fog extremely sensitive plates.

The majority of photographers, in arranging a dark-room, will, no doubt, have to encounter the difficulty of suitably adjusting their wants to existing circumstances, and their trouble at the outset will probably centre round this one of making the window available for their purpose. Any ordinary window, however, can be very easily utilised by the simple device of having a small frame of wood made the exact size of the window frame, so adjusted that when placed in position it can be fastened tight enough to prevent light from coming in around the edges. Over this frame two thicknesses of stout brown paper are stretched and glued or tacked, and, at a convenient height and position, a portion of the paper is cut away, enough to admit the required light. When this has been done, then two sheets of orange paper, or three sheets of canary medium, are pasted over the edges of the aperture in the brown paper already cut so as to completely cover it, and all that is necessary in the way of lighting the temporary dark-room has been accomplished, for, when required, the frame has only to be



placed in its position and clamped, and the room becomes lit with a perfectly safe light. Of course, it can also be easily arranged, by getting sheets of various correctly-coloured material, to have the means of adjusting the degree of light to suit any extreme circumstances that may now and again arise. This arrangement, however, is only suggested as a cheap means of overcoming any difficulty that may be experienced in making any ordinary room into a dark-room. Of course the better way is to have a window constructed with blinds of various shades, by whose regulation the lighting can always be adjusted to a nicety. But the number of amateurs who can obtain this luxury are limited, and for practical purposes the simpler method of arrangement is just as useful, and the expense is not worth consideration.

(To be continued.)

## Science Notes.

I SEE that Mr. A. Pringle endeavours to champion the Convention—and naturally enough, for is it not his child?—but the cause is too weak for even his pen to bolster up. I wish the Convention no harm, but I greatly desire that it were better managed. It is ineffectually trying to do a work which ought to be done by the Photographic Society of Great Britain; and the Camera Club is (effectually) doing another part of the work which really belongs to the same body. The three institutions ought to amalgamate, and photography might then take its proper position in the world of science and of art. It is really too ridiculous to see a few photographers, who meet for a holiday once a year, appointing committees to determine questions which affect tens of thousands of workers. No wonder M. Warnerke writes last week in reference to the decisions of one of these committees, that it is “throwing a gratuitous insult at the heads of thousands.”

To pay me off for daring to find fault with the Convention, Mr Pringle appears to have been microscopically studying my “Notes,” and he pounces upon my statement as to Anthony’s films being found to be 314 times more rapid than a wet collodion plate. It was unkind of the printer to arrange Dr. Hurter and Mr. Driffield’s letter, which confirms my statement, exactly on a line with Mr. Pringle’s letter denying it!

If the Convention contains the elements of success, criticism can only do it good; and it needs it.

One word as to the paper by Mr. Newman, published in your last issue, and which was read at the Convention. A gentleman writes to me stating that *no discussion was allowed* upon the paper! So that a man may read a paper before the Convention virulently attacking another worker, not a word is allowed to be said in defence of the man attacked, and the paper is published without the antidote which a discussion would have supplied. When the Convention Council accepted such a personal paper (I think Dr. Emerson is mentioned, by name, about forty times in it), the least that could have been done would have been to have allowed, or even invited, some representative of “the other side” to express his views. I know that Dr. Emerson declined Mr. Pringle’s invitation to join the Convention movement; and I suppose he is now being punished for it.

Last week’s *Graphic* (July 12th) contains a set of humorous sketches entitled “Photographing a Dog,” which will excite sympathy in the minds of not a few amateurs who have rashly undertaken that perilous feat. In the same number there is a capital reproduction of Mrs. Myer’s photograph of her two children.

Great attention has recently been paid by German scientists to the meteorological phenomena known as “night-shining clouds.” Herr O. Jesse (aided by several coadjutors) has photographed these clouds from points several miles apart, and has proved that their height above the earth’s surface is quite sixty miles. We thus see them by reflected sunlight. The highest (cirrus) clouds previously known had an elevation of not more than ten miles. What the nature and composition of these sixty-mile-high clouds may be is a most interesting but difficult question.

F. G. S.

## The London Stereoscopic and Photographic Company, Ltd.

### OPENING NEW PREMISES.

THE Company has just completed the fitting up of their new premises at 106 and 108, Regent Street, and we had the pleasure of going over them on Monday. It is impossible not to be struck with the attractive appearance of the frontage, and the fine display of photographs in the windows, which at night are lighted by electricity. Elegant friezes of large transparencies of London views, and medallion portrait transparencies of celebrities can be seen both by day and night. As a public advertisement there has been arranged a large ground-glass window upon which, projected by an electric lantern of 6,000 candle-power, pictures will nightly be exhibited of any event of the day, of the latest celebrity, or scenes from the latest play at the theatres. This display will, we understand, be continued till a late hour.

The interior of the shop is devoted to the display of classified albums of views, specimens of enlargements, and direct photographs by various processes, and also of photographic apparatus of the most modern design; and in velvet-lined cases are exhibited hundreds of the Company’s celebrated “Black Band” lenses, suited to every photographic requirement. An experienced staff is engaged in fitting out amateur photographers with all the paraphernalia they require, either for Continental travel and expeditions further afield, or for participating in the growing recreation of landscape and instantaneous photography.

Ascent to the higher floors can be made either by staircase or lift, and on the first floor is found a spacious and harmoniously decorated reception room, which can be darkened for optical lantern purposes, and where it is proposed to hold, during the winter season, a series of practical lectures and demonstrations upon popular and interesting departments of amateur photography. These lectures, etc., will take place in the afternoon and will be opened to the Company’s clientèle.

The second floor is devoted to the extensive chemical and apparatus stock-rooms, where the execution and rapid dispatch of orders goes on continually. Here also is a camera-fitting and repairing room, where amateurs’ requirements are rapidly attended to, also accommodation for the frame-making and fitting departments, and the housekeeper’s room.

On the third floor there is an excellent suite of dressing-rooms, luxuriously fitted for the accommodation of sitters; a ladies’ boudoir, elegantly furnished, and fitted with the electric light. The large “family room,” lighted by four windows, and doubly fitted with every requirement, accommodates groups and family parties who may wish to be together, whilst the comfort of gentlemen is provided for in a room set aside for their special use.

On the fourth floor is a lounge for those who are awaiting access to the large studio, which opens herefrom through decorated portières. Pleasantly lighted from the roof the walls here exhibit a display of most interesting specimens of amateur work, chiefly representing the winning pictures which gained medals at the Company’s different exhibitions; many of the specimens indicate the wonderful skill attained by pupils of the Company after a few practical lessons. In the large studio, from which so much of the Company’s celebrated work has emanated, a group of fifty can be comfortably taken.

Immediately facing the lift on this floor is the special instruction room provided for amateur photographers. In this amateurs’ room customers of the Company can test by practical trial all the apparatus they propose to purchase, and by receiving their instructions with the instrument in which they have invested, are at once made acquainted with its use. A clever arrangement of windows and shutters enables views of the ever-varying traffic of Regent Street, as well as views of the adjoining houses and shops, to be taken by the pupil, whilst a series of most ingeniously fitted dark-rooms, with every requirement provided, are at the disposal of the Company’s pupils. All lessons are given in private, so that learners are not called upon to display their ignorance before on-lookers.

A short staircase leads from this floor to the newly-erected upper studio, in which every appliance that practice and science has proved to be desirable is introduced. It is intended to devote this studio to an entirely new class of photographic productions, embodying all the ease and grace of “Home



Portraiture," with the exceptional facility offered by the best arrangement of studio lighting.

In order to ensure the originality of the productions emanating from this studio, an artist of repute has been engaged who will pose and arrange the sitters, independently of the photographic operator who only controls the technical part of the work. In this room nothing but furniture of the choicest kind is utilised in the composition of the work. The studio is treated as a drawing-room with handsomely decorated dado and parquet flooring, to which old eastern rugs and Louis Seize furniture lend an air of home-like reality not usually met with. Sitters for this studio will only be taken by special appointment, after interviews with the artist, who will arrange as to dress, etc.

## Holiday Resorts and Photographic Haunts.

### HARROGATE, YORKS.

By H. T.

THIS popular and rising watering place will well repay a visit with the camera, situated as it is in the heart of the old forest of Knaresborough, and within easy distance of Nidderdale and Wharfedale, two of the prettiest of Yorkshire streams. Although the greater portion of the town is of comparatively modern construction, there are many "bits" which are worth exposing plates upon. The Spa, with its ornamental grounds, the Montpellier Gardens, and the Royal Pump Room (where the celebrated sulphur water is quaffed with wry faces) all afford good subjects. The new Valley Gardens, laid out by the Corporation during the last three years, contain many pretty views, and the Bog Field, with its mineral springs and the Royal Bath Hospital, make a good picture with part of the Valley Gardens in the foreground. A healthy walk over Harlow Moor, with its splendid views over nearly half of Yorkshire (from whence York and Ripon Minsters can be seen), soon brings us to Birk Crag, a romantic ravine, with precipitous rocks overhanging the Oak Beck. Immense masses of rock and massive boulders perched on the summit of the crag seem ready to topple over, and, crashing through the silver larches, block up the rippling clear stream which trickles along the bottom of the valley. For a ramble with a camera, Birk Crag is not to be easily surpassed. The old Roman Bridge a little lower down the stream forms a nice subject. Returning into the town towards evening, plenty of scenes present themselves for hand-camera work, there being every variety of open-air entertainments proceeding on the Prospect Hill. On fine mornings four-in-hand drags leave the various hotels for Bolton Abbey, Fountains Abbey, Plumpton Rocks, Knaresborough, etc., and the drags with their fine teams are worthy of a plate. Harrogate is the railway centre of the district, and a great many places of interest can be easily reached by those who prefer taking train to driving. Harewood Castle (afternoon), Almas Cliff, Otley, and Ilkley are within a few miles on the Leeds and Bradford lines in the valley of the Wharfe. Wetherby, Boston Spa, Thorparch (with the Cowthorpe Oak), Spofforth Castle, and Plumpton Rocks (afternoon light) make very pleasant excursions. The old borough of Knaresborough, only three miles away, has plenty of beautiful scenery, old houses, and historical ruins. The castle, with its ivy-clad, massive keep, the castle hill, and walls, should be visited in the afternoon. The view from the castle hill up the Nidd Valley is very fine; the old Elizabethan Bilton Hall is an interesting house; also the ancient Manor House, which should be taken from the Long Walk. The "Dropping Well" and Mother Shipton's Cave are situated in the Long Walk; and further down the river are Fort Montague and St. Robert's Cave, the latter being the scene of Eugene Aram's tragedy. Grimbold Crag is a bold rocky cliff with an old mill and its dam at the foot of the crag (afternoon light). Taking train from Knaresborough, the market town of Borobridge is soon reached, and at Aldborough there are the old Roman pavements and beautiful gardens well worth visiting. The Devil's Arrows, about ten minutes out of Borobridge, are interesting relics of the past. Ripon Minster and Fountains Abbey are both well known, the latter having an almost endless

wealth of subjects, requiring both morning and afternoon lights for the grounds and ruins. A pretty place not so much visited is Newby Hall, the seat of Lady Vyner, on the river Ure. Further away to the west are Brimham Rocks, consisting of huge piles of curiously shaped boulders and rocking stones, many of which form good pictures, covered as they are with heather and mosses. These rocks are situated on a ridge at a high elevation, and from thence magnificent views of the Nidd Valley may be obtained. The easiest way to reach the Rocks is to take train from Harrogate to Dacre, and then walk up the hill—a rather steep one, by-the-bye—but the scenery is well worth the toil uphill. From Dacre Banks to Pateley Bridge is only a short run by rail, and the Pateley district has been called by its admirers the "Switzerland" of England; and if bold and lofty hills, peaceful valleys, mountain streams, and waterfalls are any qualification for the title, I think it deserves the name. A lovely ramble is to go from the station, up part of Greenhow Hill, and then turn to the left into Whitewood with its fish-pond; then into Ravensgill, and, climbing the rocks up to the top of Guy's Cliff, Nidderdale is spread out at your feet for miles. Descending Guy's Cliff the return journey is through pretty woods, past Castlestead, which is a nice subject for a plate, with the river and bridge. The old church and cemetery on the hillside should not be omitted. If inclined for a stiff walk or ride, a visit to How Stean, where the Nidd cuts its way through the limestone, producing weird effects, Goydon Pot, and Manchester Hole, at which places the river disappears underground for about half a mile, will give you fine negatives. Having pretty nearly "boxed the compass" in attempting to run through some of the photographic attractions of Harrogate and district, I trust that this brief description of the "places of interest," as the guide-books call them, will induce brother amateurs to pay a visit to this neighbourhood, and I am certain that they will be well repaid by so doing.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. The PHOTOGRAPHIC SOCIETIES' REPORTER was established to report the transactions of Societies, and the Editor will be glad to receive reports for insertion as early as possible after the meetings have been held, and at the latest before the 24th of each month.

**BEDFORD AND DISTRICT CAMERA CLUB.**—An ordinary meeting was held on the 8th inst., Dr. Beaman in the chair. Mr. Stuart produced Stirn's American pattern hand-camera, and explained its working. Mr. Stewardson showed the members a few "shots" taken with "the Guinea" hand-camera. Mr. A. Kirby then read a very interesting paper on "Exposure," and showed and very ably explained Watkins' new exposure meter.

**BIRKENHEAD PHOT. ASSOC.**—The usual monthly meeting was held on the 10th inst., the President (Mr. P. C. Phillips) occupying the chair. Mr. H. Wilkinson exhibited his patent light-tight cover for developing trays, successfully demonstrating its utility by the prolonged development of a negative in view of the meeting. Messrs. Sharp and Hitchmough exhibited several novelties, the Gresham camera, the Pukah, and the new wire ruby fabric. By the kindness of Mr. H. H. Holt, a splendid collection of Ceylon views were on exhibition during the evening. At the close of the ordinary meeting a specially convened meeting was held for the purpose of electing a Vice-President in the place of Mr. H. H. Williams, whose resignation of the office on account of his going abroad, was accepted with great reluctance and regret. In responding to a vote of thanks for his many kind services and untiring energy on the Association's behalf, Mr. Williams remarked that his interest in the Association would not be relaxed in the slightest, and he hoped to be able to contribute to many an evening's enjoyment by means of photographs of that part of the United States in which he intended to make his home, and other places of interest which he might visit. The unanimous election of Mr. G. E. Thompson to the office closed the business for the evening.

**BRAMLEY AND DISTRICT PHOT. SOC.** held its monthly meeting on the 1st inst. In the absence of Mr. F. Young, through illness, the meeting was a conversational one, with the exhibition of the month's work in the shape of negatives and prints. A drive was arranged for members and friends for Saturday, July



12th, via Adel and Roole, to Washburn Valley. The subject for the next meeting will be "Printing and Toning," by Mr. Menskiss, of Stanningley. A new camera was exhibited, and also several other interesting items, including the new celluloid films of Messrs. Anthony and Co.'s manufacture.

**CAMBERWELL CAMERA CLUB.**—On Wednesday, the 9th inst., a number of amateurs met at the "Stirling Castle," Church Street, Camberwell, for the purpose of considering the desirability of forming a society for that district. Mr. Rice was voted to the chair. It was decided that a society should be formed with the above title, with Mr. Pike, one of the first promoters, as President *pro tem.*, Mr. Pike, Chairman of Committee, and Mr. F. H. Atkins, of 71, Paulet Road, Camberwell, as Hon. Secretary. It was determined that an endeavour should be made to secure a meeting place in the neighbourhood of Camberwell Green, and the society will be pleased to receive the names of any gentlemen desirous of joining the club, which will meet on alternate Wednesdays at eight o'clock.

**CLEVELAND CAMERA CLUB.**—This club, started at Redcar in 1888, as the Redcar and Coatham Amateur Photographic Association, has now changed its head-quarters to Middlesbrough, under the name of the Cleveland Camera Club, with a view to increasing its membership and becoming more efficient for the development of photography in the district. Two meetings have already been held for the revision of rules and display of apparatus, and two successful excursions have taken place. The next meeting will be held on July 29th, at which a competition among the members for the best animal study will be decided, and Dr. Stainthorpe will read a paper on "Stereoscopic Photography." Monthly meetings will be held throughout the year, at which papers will be read and discussed, and during the winter lantern-nights will be arranged. The membership has now increased to over forty.

**CROYDON CAMERA CLUB.**—On Thursday the 10th inst., a meeting was held at the public hall, Mr. G. R. White (Deputy President) in the chair. The Secretary read a financial statement showing the affairs of the club to be in a very satisfactory condition. The Chairman called upon Mr. De Clercq to inform the meeting of the Council's views and decision, in reference to acquiring a permanent home for the C.C.C. From his statement it appeared that the Council had in contemplation the acquisition of premises situated at 56, George Street, Croydon, as being in every way suitable for the purpose. The Secretary proposed and Mr. Cheshire seconded a resolution approving the Council's decision. After a few remarks in favour of the scheme by Mr. Alfred Underhill, the Assistant-Secretary, the resolution was carried unanimously. Mr. Neeves proposed and Mr. Waters seconded the following resolution (which was carried *nem. con.*), "That a sub-Committee be appointed, consisting of Messrs. White, De Clercq, Underhill, Overton, and Isaac, to take the premises on behalf of the club, and to enter into every arrangement which, in their opinion, may be necessary for acquiring the premises, and adapting them to the requirements of the club." The Secretary was authorised to call a special meeting on July 16th to take possession of the rooms. After the business portion of the meeting had concluded, several of the members handed round some excellent specimens of their work during the recent excursion to Wallington, Burford Bridge, and Mitcham.

**DEWSBURY AM: PHOT: SOC.**—The monthly meeting was held on the 10th inst., Mr. T. G. Beaumont (President) in the chair. Mr. E. Scargill brought to the meeting one of the Postal Photographic Club albums for inspection. Several members brought negatives and prints, which were handed round. A discussion on the development of lantern-slides was raised, when it was ultimately decided to have a demonstration at the next meeting. A negative to be selected, when several members will expose a plate each, and develop it by any developer they choose, when they will be compared to judge which developer gives the best results.

**EALING PHOT: SOC.**—A meeting of the above Society will be held at the Victoria Hall, Ealing, on Thursday, the 24th inst., at 8 p.m., to approve the rules, enrol members, and elect officers for the year. The provisional Committee invite the attendance on that occasion of all who are interested in the subject.

**HACKNEY PHOT: SOC.**—The ordinary meeting was held on the 10th inst., Mr. C. F. Hodges presiding. The Secretary reminded members of the excursion to St. Albans on Saturday, July 19th,

by train leaving King's Cross (Great Northern Railway) at 2.40. With respect to the competition of work, he was very pleased to inform them that Messrs. H. P. Robinson and J. Traill Taylor had promised to adjudicate. Mr. Acres then gave a very instructive paper on "Development." In the course of his paper he advocated the use of backed plates, as more latitude was obtainable. In photographing glens he preferred a dull day. After entering very fully into development, he proceeded to develop an Isochromatic plate, one very interesting experiment being that he made a positive by ruby light and developed it with the white candlelight. He, however, held the dish aloft until nearly finished, when he examined it by the white light. The rebate was perfectly clear when finished.

**HARLES DEN AND WILLES DEN PHOT: SOC.**—A meeting was held on Tuesday night at Mr. H. T. Reed's studio, in the High Street, with the President (Mr. J. Naylor) in the chair, and Mr. T. Clapton read a paper on the "Theory of the Swing-Back." Views taken at the last excursion (to Wembley) were exhibited, and some of them were selected for the Society's album (presented by the President). A second excursion will be made to Wembley on Saturday, as the neighbourhood is considered to be a good hunting ground.

**HOLBOEN CAMERA CLUB.**—On Friday, 11th inst., a meeting was held with Mr. Knights in the chair. The Secretary read a paper published in the *AMATEUR PHOTOGRAPHER*, entitled "Are Photographic Rambles Remunerative?" The writer of the paper is greatly in favour of the half-day excursions, he thinks it tends to keep the members of a club in touch with each other, and is often of great assistance to a beginner in helping him to determine the best point from which to take a view. In the discussion that followed, Mr. Smith agreed with the paper as to the value of outings keeping the members of a club united, but found that he was able to *work* better by himself. Mr. F. J. Cobb's opinion was that every one could do without a crowd when out photographing, still he thought the outing useful and he always enjoyed the excursions, and if he succeeded in bringing home at least one good view, he felt repaid and satisfied. The Secretary laid on the table a book presented to the Club by Mr. Werge, entitled "The Principles and Practice of Photography, Wet and Dry," and also called the attention of the members to the fact that their Committee has arranged to have a tent this year at the Southern Counties Cycling Camp to be held at Godalming the first week in August.

**ISPSWICH PHOT: SOC.**—The monthly excursion took place on Saturday, the 12th inst., under the leadership of Mr. Frank Woolnough, and the whole of the day was devoted to a drive to Framlingham.

**LONDON AND PROVINCIAL PHOT: ASSOC.**—At the annual general meeting of the above Association, held at Masons' Hall Tavern, Basinghall Street, E.C., on the 3rd inst., a hearty vote of thanks to the photographic Press for contribution of their journals during the year (which have been greatly appreciated) was proposed and carried unanimously.

**NORTH KENT AM: PHOT: SOC.**—A meeting of this Society took place on the 10th inst., Mr. S. Hodson in the chair. It had been announced that Mr. E. C. Conrad, F.C.S., would read a paper on "A Tour up the Rhine with a Hand-Camera," but he was unable to be present, and the members had to be content with examining the photographs. The question of summer excursions was raised, and it was arranged that the Chairman and Secretary should organise an outing in a few weeks. The meeting then adjourned to the dark-room to witness the development of some celluloid films. The next meeting will be held on August 14th, when the "White Mountain of New Jersey" set of lantern slides will be shown.

**PHOTOGRAPHIC SOCIETY OF IRELAND.**—An excursion took place to Howth on the 12th inst., but the day was very wet. The Society adopted small competitions for each of its excursions similar to that described in our issue of June 6th, page 417. It is believed that these competitions will considerably increase the attendance.

**SHEFFIELD PHOT: SOC.**—A special meeting of the above society was held on the 8th inst., Mr. B. J. Taylor in the chair. Mr. Smith, the representative of the Eastman Company, gave a lecture and demonstration on their latest Kodak hand-camera and their new films, which was very instructive and interesting, after which he developed some film negatives, exposed during the



day at Chesterfield, which all came out splendidly. The Saturday afternoon excursion was postponed until the 26th inst. The Secretary announced an invitation from the Rotherham Society to join their excursion to Haddon Hall on the 17th inst.

**STAFFORDSHIRE POTTERIES AM: PHOT: SOC:—**The ordinary meeting was held on the 8th ult., at the Town Hall, which is now the head-quarters. Excursions were arranged to Congleton and Danebridge on the 17th inst.; and to Knypersley and Biddulph Moor on the 26th inst. The business for the evening was a "Discussion upon Apparatus," in the course of which several members exhibited their cameras, and explained their working. Fallowfield's "Facile" and the "Diamond" hand-cameras were also shown and their working explained, together with specimens of work done with them. Some shutters, including Underwood's and the Thornton-Pickard time and instantaneous, were also shown. The whole of the exhibits were freely criticised and discussed.

**STOCKPORT PHOT: SOC:—**The usual monthly meeting of this society was held on Wednesday the 9th inst., at the Mechanics' Institution; the President (Thos. Kay, Esq., J.P.) in the chair. It was decided that a photographic survey of the town and neighbourhood be taken, and a copy of the prints be given to the Free Library. To further this idea a sub-Committee was formed with Mr. Broome as Hon. Sec. It was also proposed to fill an album with members' work for presentation to the Infirmary. At the close of the business some hand-cameras were shown, one made from the design of Mr. Seed (of Manchester), being a simple box to accommodate his ordinary quarter-plate lens, shutter, and double-backs. The others were kindly lent by Mr. J. T. Chapman (of Manchester). The results of the late ramble to Gawsorth were shown by Messrs. Brooke, White, Froggat, Wood, and Clitheroe.

**WOOLWICH AND DISTRICT PHOT: SOC:—**The July (indoor) monthly meeting was held on Wednesday, the 9th inst., Mr. C. Mittelhausen in the chair. Mr. G. Harris (the Treasurer) read the financial report, which showed that for the summer months the subscription of one shilling was adequate for the liabilities of the Society. Mr. Aspinall then read a paper on "Hand-Cameras," showing at the same time his own, made by himself, and capable of carrying twenty plates, which can be exposed in quick succession. The camera was constructed from an old quarter box camera of the wet-plate type, fitted with a finder and with a receptacle for the plates, entirely doing away with dark-slides or sheaths. Working drawings were handed round, and the simplicity and general arrangement were much admired. The outdoor July meeting will be held on Saturday, 19th, weather permitting (if not, the 26th inst.), at Belvedere Park. Trains leave Woolwich Arsenal Station 3.6 and 3.58 p.m.

**CORRECTION.—**Mr. Robert O. Milne, Bournemouth, writes:—"In your issue of the 11th, under 'Exhibitions,' I note you credit Mr. Schwabe as having exhibited "A Quiet Nook in Shanklin Chine." The first prize of the year was awarded to me for *this* and three other yacht pictures. Would you kindly correct in your next?"

! We have received the first number of an exceedingly well got up illustrated journal, *The Gentlewoman*, published weekly, price sixpence. The editor is Mr. J. S. Wood, a gentleman well known for his ability as a journalist. The illustrations are exceptionally good, and the literary matter has many novel features. We should say that the paper will be heartily welcomed by lady readers, and the sterner sex will find much to interest them in the columns of *The Gentlewoman*.

**JACOBY'S DIRECT PRINTING PLATINUM PAPER.—**Mr. Otto Schölzig has enabled us to test some paper, which he is agent for in this country, and the results are eminently satisfactory. The paper, which is of a dirty yellow colour, should be slightly moist when printed, and if the weather be very hot should be passed slowly over the steam from boiling water before putting in the frame. If it be in the proper condition, full tones can be obtained in the printing frame. Fixing is effected by the prints being placed in two baths of dilute hydrochloric acid for five minutes each, the first, 1 part of acid to 75 of water, and the second, 1 part of acid to 50 of water. They should be washed in water for fifteen minutes, till all trace of yellowness has disappeared. It is desirable that printing and fixing should be done on the same day.

## Apparatus.

### SWINDEN AND EARP'S PATENT HAND-CAMERA.

IN the issue of the *AMATEUR PHOTOGRAPHER* for October 4th, 1889, we gave a descriptive account of the Swinden and Earp hand-camera. At that time we foresaw that the camera would take a high place as a most efficient apparatus. When exhibited at the Exhibition of the Photographic Society of Great Britain it attracted much attention, and was awarded the Society's medal by the jurors, an award which, in our opinion, was thoroughly merited.

Since that date the camera has become well known, large numbers have been sold, and to none has it given more satisfaction than to ourselves. At first we were disposed to look upon it with some suspicion, fearing that, although in practical hands no difficulty would be experienced in using it, in the hands of beginners some of the movements might be misunderstood, and the camera blamed when blame was not merited. To those who want everything done for them, another drawback we felt was the necessity of backing the plates. This has now been obviated, for we have just received an intimation from the Photographic Artists' Supply Association, who are the agents for the camera, that both Messrs. Mawson and Swan, and R. Thomas and Co., Ltd., are supplying plates "specially backed" for the Swinden and Earp camera. This removes the necessity for the operator to do the work himself.

We will now proceed to give a short description of the camera, mainly in the words of the maker.

In charging the camera care has to be taken that the plates, after backing, are carefully placed in the chamber, and that the spring rods catch them, and hold them exactly in position. Perfectly home and in position, each plate presents itself automatically for exposure, when the exposed plate falls into the well or chamber provided for it.

Focussing is effected by means of a thumb-screw underneath the camera, which is marked off to provide for focussing objects at 6, 8, 10, 15, 20, and 30 feet distance.

The shutter is an adaptation of the "Kershaw" form, arranged for several speeds. The operations of winding and setting are extremely simple, and are effected in a moment.

An intermediate shutter, or light screen, is provided in order to permit of access to the lens to insert diaphragms.

This camera can be used for time exposures, affixed to a tripod of the usual form; at the side of each camera a plate indicator is arranged which shows the number of the plate being used.

The illustrations we give show Fig. 1, the camera closed; Fig. 2, the front of the camera opened; and Fig. 3, the bottom of the same, showing focussing arrangement, plate changer, plate register, and strings for working shutter.



FIG. 1.

doublet lens of  $5\frac{1}{2}$  equivalent focus, working at  $f/7$ . The price for quarter-plate is £7, and for 5 by 4, £8.

Every care has been taken to make these cameras perfect; they have been largely used.

When at Newcastle recently we found Mr. Paul Lange leisurely walking along the Quayside with his Swinden and Earp; he has long been an ardent admirer of the

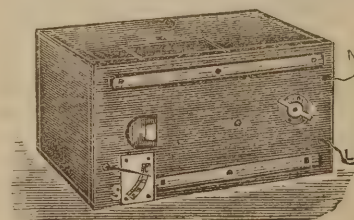


FIG. 3.

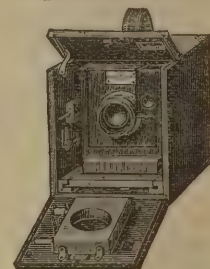


FIG. 2.

ingenuity of the patentees. The agents are the Photographic Artists' Supply Association, 43, Charterhouse Square, London, E.C. They will doubtless give full particulars, or it will give us pleasure to show the camera to any one calling upon us on our usual "at home" days.



## Register of Dark-Rooms, 1890.

### "AMATEUR PHOTOGRAPHER" LIST OF DARK-ROOMS.

WE class them in four divisions, *i.e.*, *a* amateur, *d* dealer or professional, *h* hotel, and *s* photographic society.

In our letter of introduction full particulars are given as to owner, address, charges (if any); plates, chemicals, etc., kept by dealers; terms for temporary membership of societies; hotels; distance from station, etc., etc.

Every application for letter of introduction must be accompanied by SIX PENNY STAMPS. The owner of "Dark-Room" will be advised by same post as the applicant. The envelopes should bear the endorsement DARK-ROOMS.

NOTE.—Upon application information can be supplied respecting dark-rooms on the Continent, and addresses of many firms who stock photographic material.

<i>d</i> Aberdeen	<i>d</i> Colwyn Bay	<i>d</i> Ilfracombe	Prince's Risboro'
<i>d</i> Aberystwith	<i>a</i> Coniston	<i>d, s</i> Ipswich	<i>d</i> Reading
<i>d</i> Addingham, Yorks.	<i>d, s</i> Crewe	<i>d</i> Jarrow	<i>h</i> Redcar
<i>d</i> Amble, Northumberland	<i>d</i> Crewkerne	<i>d</i> Jersey	<i>h</i> Redditch
<i>d</i> Andover, Hants	<i>d</i> Croydon	<i>d, s</i> Keighley	<i>d</i> Rhayader
<i>a</i> Aylesbury, Bucks	<i>a</i> Dalton-in-Furness	<i>s</i> Kendal	<i>d</i> Richmond, Surrey
<i>d</i> Barmouth, N. Wales	<i>d</i> Darlington	<i>a</i> Kimberley	<i>a</i> Ringwood, Hants
<i>a</i> Barnsley	<i>h</i> Dartmouth	<i>d</i> King's Lynn	<i>d</i> Rochdale
<i>a</i> Barnstaple	<i>d</i> Deal	<i>a</i> Kingstown, Dublin	<i>a</i> Rodley, near Leeds
<i>d, s</i> Bath	<i>d</i> Derby	<i>d, h</i> Lancaster	<i>d</i> Romford
<i>h</i> Beaconsfield	<i>a</i> Devizes	<i>d</i> Larne	<i>d</i> Royston
<i>a</i> Bedford	<i>h</i> Dingwall, N.B.	<i>d</i> Leamington	<i>d</i> Ryde, Isle of Wight
<i>d, s</i> Belfast	<i>a</i> Doncaster	<i>d</i> Lechlade	<i>h</i> Ryde
<i>s</i> Belfast	<i>a, d, h</i> Douglas, Isle of Man	<i>h</i> Ledbury	<i>a</i> St. Agnes
<i>d</i> Belper	<i>d</i> Dover	<i>a, d</i> Leeds	<i>d</i> St. Andrew's, N.B.
<i>d</i> Bexhill-on-Sea	<i>d, h</i> Dublin	<i>a, d</i> Leicester	<i>h</i> St. Asaph
<i>d</i> Birchington-on-Sea	<i>d, h</i> Dunblane, N.B.	<i>a</i> Lenzie, N.B.	<i>d</i> St. Bees
<i>a, d, s</i> Birmingham	<i>d, s</i> Dundee	<i>d</i> Leytonstone, Essex	<i>a</i> St. Helens
<i>d</i> Blackburn, Lancs.	<i>a</i> Dungarvan, co. Waterford	<i>d</i> Lincoln	<i>d</i> St. Heliers
<i>h</i> Bodiam	<i>a</i> Duns	<i>d, s</i> Liverpool	<i>a</i> St. Ives
<i>d</i> Bodmin	<i>d</i> Durham	<i>d</i> Llandudno	<i>d</i> St. Leonards
<i>h</i> Bonar Bridge	<i>h</i> Ebbw Vale	<i>d</i> Llanidloes	<i>h</i> St. Mellons
<i>h</i> Boro' Bridge, Yorks.	<i>d</i> Edinburgh	<i>d</i> London, Aldersgate, E.C.	<i>h</i> St. Neots
<i>d</i> Bournemouth	<i>s</i> Egremont	<i>a</i> Bloomsbury, W.C.	<i>d</i> Sandgate
<i>d</i> Bradford	<i>h</i> Ennistymon, co. Clare	<i>d</i> Borough, S.E.	<i>a, d</i> Sandown, Isle of Wight
<i>d</i> Bramley, near Leeds	<i>a</i> Enfield Town	<i>a</i> Chelsea, S.W.	<i>h</i> Scarborough
<i>d, h</i> Brechin, N.B.	<i>a, d</i> Evesham	<i>d</i> Fenchurch Street, E.C.	<i>a</i> Shaftesbury
<i>h</i> Bridge, near Canterbury	<i>d</i> Exeter	<i>d</i> Fleet Street, E.C.	<i>d</i> Shanklin, Isle of Wight
<i>d</i> Bridlington Quay	<i>s</i> Falkirk	<i>d</i> Highgate, N.	<i>d, s</i> Sheffield
<i>h</i> Brigg, Yorks.	<i>d</i> Falmouth	<i>a</i> Kingsland, N.E.	<i>h</i> Shepton Mallet
<i>d</i> Brighton, Hove	<i>d</i> Faversham	<i>a</i> London Bridge, S.E.	<i>d</i> Shrewsbury
<i>d, h</i> Brighton	<i>d</i> Felixstowe	<i>d</i> New Cross, S.E.	<i>h</i> Sleaford
<i>d</i> Bristol	<i>h</i> Finchley	<i>d</i> Peckham, S.E.	<i>d, h</i> Southampton
<i>h</i> Broadway, Worcester	<i>h</i> Fochabers, N.B.	<i>d</i> Walworth Road, S.E.	<i>h</i> Southend-on-Sea
<i>d</i> Bromley, Kent	<i>d</i> Folkestone	<i>a</i> Long Eaton	<i>a</i> Southport
<i>h</i> Brough, Westmoreland	<i>a</i> Four Ashes, near Stourbridge	<i>h</i> Long Melford	<i>a, s</i> Southsea
<i>s</i> Burnley	<i>a</i> Frodsham	<i>d</i> Loughborough	<i>d</i> Stamford
<i>d</i> Burslem	<i>a</i> Galashiels, N.B.	<i>a</i> Louth	<i>a</i> Steyning
<i>a</i> Cadiz, Spain	<i>h</i> Giant's Causeway, Ireland	<i>a</i> Ludlow	<i>d</i> Stockton-on-Tees
<i>h</i> Callander, N.B.	<i>d, s</i> Glasgow	<i>d, h</i> Lynmouth	<i>a</i> Stoke-on-Trent
<i>h</i> Camborne	<i>a</i> Glenalmond, N.B. (nr. Perth)	<i>d</i> Lynn	<i>a</i> Stony Stratford
<i>d, h</i> Cambridge	<i>d</i> Gloucester	<i>a</i> Lythe, Whitby	<i>a, d</i> Stourbridge
<i>d</i> Carnarvon	<i>d</i> Gorleston	<i>h</i> Macroom, N.B., co. Cork	<i>d, h</i> Stratford-on-Avon
<i>h</i> Capel-Curig, N. Wales	<i>a</i> Goring	<i>a</i> Madeley, Salop	<i>d</i> Stroud
<i>a</i> Chalfont St. Peter, Mid.	<i>a</i> Gravesend	<i>d</i> Maidenhead	<i>h</i> Sudbury, Suffolk
<i>d</i> Cheltenham	<i>d</i> Great Yarmouth	<i>a</i> Mainz, Germany	<i>d</i> Sunderland
<i>d</i> Chepstow	<i>a</i> Halifax	<i>d</i> Manchester	<i>h</i> Sutton Bridge
<i>d</i> Chesham	<i>d</i> Handsworth	<i>h</i> Mallow, co. Cork	<i>d</i> Swindon
<i>d</i> Chester	<i>d</i> Hanley	<i>a</i> Malta	<i>d</i> Taunton
<i>a</i> Chesterfield	<i>d</i> Harrogate	<i>d</i> Malvern	<i>a</i> Tavistock
<i>a</i> Chipping Sodbury	<i>d, h</i> Hastings	<i>d</i> Mansfield	<i>a</i> Thornton Dale nr. Pickering
<i>a</i> Cinderford	<i>s</i> Havant	<i>d</i> Margate	<i>h</i> Thorpe
<i>d, h</i> Cirencester	<i>d</i> Hereford	<i>h</i> Merthyr Tydfil	<i>h</i> Tintern Abbey
<i>d</i> Clacton-on-Sea	<i>d</i> Herne Bay	<i>d</i> Merton	<i>d</i> Todmorden
<i>s</i> Cleckheaton	<i>d</i> Hexham	<i>d</i> Middlesborough	<i>d</i> Torquay
<i>d</i> Clevedon	<i>h</i> Holbeach	<i>d</i> Minehead	<i>h</i> Tring
<i>d</i> Clifton	<i>d</i> Huddersfield	<i>h</i> Monmouth	<i>d</i> Tunbridge Wells
<i>a</i> Clitheroe	<i>a, d</i> Hull	<i>d</i> Montrose, N.B.	<i>a</i> Tynemouth
<i>d</i> Colchester		<i>a</i> Mountsorrel	<i>s</i> Uttoxeter
<i>h</i> Colnbrook		<i>a</i> Mumbles, near Swansea	<i>a</i> Ventnor
		<i>d</i> Newark, Notts	<i>a</i> Vienna
		<i>h</i> Newbury, Berks	<i>h</i> Wadebridge
		<i>d</i> Newcastle-on-Tyne	<i>d</i> Wakefield
		<i>d</i> Newport (Mon.)	<i>h</i> Warwick
		<i>a</i> Newport, Pembroke	<i>a, d</i> Waterford
		<i>a</i> Niton, Isle of Wight	<i>a</i> Wellington, Salop
		<i>d</i> Norwich	<i>d, s</i> West Hartlepool
		<i>d</i> Nottingham	<i>d</i> Weston-super-Mare
		<i>a</i> Northallerton	<i>h</i> Wetwang, York
		<i>a</i> Oban	<i>d</i> Weymouth
		<i>s</i> Oldham	<i>d</i> Whitby
		<i>a</i> Oxford	<i>d</i> Wimbledon
		<i>h</i> Paignton	<i>d, h</i> Windsor and Eton
		<i>h</i> Paisley, N.B.	<i>d</i> Wisbech
		<i>d</i> Penrith	<i>a</i> Wolverhampton
		<i>d</i> Penzance	<i>a</i> Worcester
		<i>d</i> Pershore	<i>d, h</i> Worthing
		<i>a</i> Perth	<i>a</i> Yarm
		<i>a</i> Poole	<i>d</i> Yeovil
		<i>h</i> Port Erin, Isle of Man	<i>a, d</i> York
		<i>d</i> Preston	<i>d</i> Youghal



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns MUST be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4003. **Optimus Long-Extension Camera.**—Can anyone give me the exact dimensions of an Optimus long-extension half-plate camera when closed up, and also of the dark-slide?—H. C. L.

4004. **Obernether Paper, Toning Bath for.**—Has anyone succeeded with the concentrated toning baths for Obernether paper, mentioned on page 396? I have tried them, but cannot get a good tone.—H. O. L.

4005. **Horseback, a Camera on.**—Will someone kindly mention the most suitable camera to be used, both in the hand and on a tripod, with focussing screen? It also has to be carried about on horse-back. Also the most suitable tripod to be used with same? Please give prices and place they can be obtained at.—E. S. O. (South Africa).

4006. **Barmouth.**—Could any reader tell me the prettiest "bits" to photograph at or near Barmouth, as I am thinking of staying there in August?—C. G. L. O.

4007. **Ferrous Oxalate Developer.**—Would any of your readers kindly give me the quantities of ferrous oxalate and potassium oxalate required to make ferrous oxalate developer in one bottle?—L. TARNER.

4008. **Edinburgh.**—About the middle of August I intend visiting Edinburgh for six days, and if some photographic friend will kindly tell me where the most interesting bits are to be found he will greatly oblige.—H. B.

4009. **Arundel.**—Can any of your readers inform me if permission to photograph Arundel Castle and grounds, Cowdry Ruins, near Midhurst, and Petworth House and grounds is required, and, if so, where can I get same?—T. W. T.

4010. **Focus.**—What is the "back focus," "equivalent focus," and "focal length" of a lens? How is it possible to obtain the focal numbers of stops when not indicated?—LENSGRAPH.

4011. **Lenses.**—Can some reader clearly distinguish between wide angle and portable symmetrical, between Buryoscope and rapid rectilinear, between achromatic and applanatic?—LENSGRAPH.

4012. **Llandudno.**—Can any reader kindly tell me of a dark-room in this place? The one at Nuneham House has, I find on writing for particulars, been abolished. I suppose slow landscape plates (England's) would be best for use in August. I shall take my own plates.—H. R. S.

4013. **Eastman's Roller Films.**—Will any amateur who uses these, for  $\frac{1}{2}$  by 5 and larger sizes, tell me if they are equal to glass plates as a means of producing negatives? After two or three negatives have been taken can they be taken off the roller and developed?—R. GORDON.

4014. **Carbon Printing.**—I should be much obliged to anyone who could give me any information about this—whether it is easy, and could be worked by an amateur who does most of his work in the evenings; how the paper keeps, and its cost compared with some of the other printing processes? Also the name of a good book on it?—J. E. P.

4015. **Lens.**—What difference, if any, irrespective of focal length, does it make whether the front or back combination of a doublet is used as a single lens, retaining the lenses in their respective positions?—MUWA.

4016. **Alpha Paper.**—Can any good results be ob-

tained by developing Alpha paper with hydroquinone instead of ferrous oxalate? Also can it be toned with the acetate bath?—F. POWELL.

4017. **Isle of Man.**—I intend spending a week in the Isle of Man next month, and shall be much obliged for any particulars for a week's tour with the camera. Any hints will oblige as to exposure; if more than R.R. lens will be required, and also if shutter will be of any advantage?—M. GINTY.

4018. **Developer.**—Will anyone oblige me with Thomas' carbonate of potash and washing soda formula? as I cannot find it on their boxes, nor amongst the advertisements issued with their plates.—M. GINTY.

4019. **Focus.**—When I take a photograph horizontally (such as a landscape would be), all round the edge of the picture turns out blurred and indistinct. Will someone tell me the reason of this, and if it can be remedied?—TOFF WALL.

4020. **Brooklyn.**—Will someone give me his opinion of the above camera?—TOFF WALL.

4021. **Windsor Castle.**—Can permission be had to photograph in the interior of Windsor Castle and grounds; if so, from whom?—NIGER.

4022. **Bettws-y-Coed.**—What is the best time of day, and the approximate exposure, say  $\frac{1}{16}$ , for the following subjects:—Swallow Falls, Fairy Glen, Miner's Bridge, and Pandry Mill?—NEMO.

4023. **Waterfalls under Foliage, etc.**—Shall be glad of any information on the above subject. Is it necessary to resort to combination printing in order to reproduce the light and shade on the water, or can that be got by long exposure and quick development? Is it necessary to back plates for such subjects?—NEMO.

4024. **Backing Plates.**—What is the safest way to back plates previous to starting for a fortnight's holiday? Pasting non-actinic paper seems to me the simplest. Would this have any effect on emulsion?—NEMO.

4025. **Toning Gelatino-Chloride Paper.**—Where can I get the concentrated toning solutions mentioned in the article "Printing in Gelatino-Chloride," which appeared in **AMATEUR PHOTOGRAPHER** of May 30th?—H. G.

4026. **North of Spain.**—I intend going there next month. Can any brother amateur give me any hints as to exposure, stops, instantaneous and time? I use Optimus 7 by 5 R.R. lens, Phantom shutter, and Paget plates, ordinary. Any information will greatly oblige.—T. A. B.

4027. **Lens Testing.**—How can I test a lens for curvature and spherical chromatic aberration?—F. J. S.

4028. **Lens for Hand-Camera.**—I intend making myself a quarter-plate hand-camera, and should be glad of advice in the matter of a lens. I want a good one, but not too expensive, to work at about 4 in. fixed focus. Can any reader help me?—J. H. TELFER.

4029. **Dovercourt.**—I shall be glad if some brother amateur will kindly inform me as to any "pretty bits" there may be in the neighbourhood of Dovercourt, and if it would be worth my while going there for a fortnight's photographic work?—TAKAKA.

4030. **Manchester Ship Canal.**—I shall be much obliged if any reader of the **AMATEUR PHOTOGRAPHER** will tell me the best place to go to by rail to see the works of the Manchester Ship Canal, and take a few negatives if possible. Any information would oblige.—SOUTH-WEST.

## QUERIES UNANSWERED.

- April 4th.—Nos. 3664, 3674, 3677.  
 18th.—No. 3718.  
 25th.—Nos. 3727, 3742, 3747.  
 May 2nd.—No. 3758.  
 16th.—No. 3820.  
 23rd.—Nos. 3839, 3843.  
 June 6th.—Nos. 3883, 3884.  
 13th.—Nos. 3885, 3896, 3901, 3910, 3911.  
 20th.—Nos. 3914, 3917, 3918, 3922, 3924, 3927, 3928, 3929.  
 27th.—Nos. 3933, 3935, 3939, 3940, 3943, 3946.  
 July 4th.—Nos. 3950, 3953, 3967, 3968, 3969, 3972.  
 July 11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3990, 3991, 3992, 3994, 3995, 3997, 3999, 4001.

## ANSWERS.

3973. **Optical Contact.**—J. Fitzvulture might try careful treatment with hot water, as this method of mounting is usually done with gelatine. Great care will be necessary to avoid tearing.—GREENWOOD.

3973. **Mounting in Optical Contact.**—Soak the glass in warm water at least half an hour. The print then should leave the glass. Afterwards wash the print, and dry between blotting paper.—M. BUCK.

3977. **Matt-Surface Paper.**—Print very deeply indeed, almost black. After washing, pass the prints through salt and water, wash again, then tone. I use the borax bath, made rather weaker than for albumenised paper. The prints tone very rapidly; wash again, fix for five or ten minutes in weak hypo, with a few drops of liq. ammonia in it.

Very fine results can be obtained by Mr. Lyonel Clark's platinum process. A print is enclosed.—W. H. H.

3980. **Yellow Stains.**—Try weak cyanide of potassium—say, 1 dr., 10 ozs.—GREENWOOD.

3981. **Hastings.**—If your querist will refer to your issue, June 8th 1888, he will find all he wants in the article I sent you, or, if he calls on me, I will give him any information.—A. BROOKER.

3981. **Hastings.**—The Castle, at Hastings, pier, sea-front; St. Leonards Gardens, Battle Abbey, Fairlight, Normanhurst, Pevensey Castle, and Eastbourne, all offer "bits" worth any photographer's while for shots or time exposures.—M.

3982. **Channel Isles.**—Places of interest are all over the island. Go the three journeys with the cars, take note of the pretty scenes, then return with camera and plenty of plates. "Marine" Hotel or "British" at ten shillings per day, or the Bristol Hotel, kept by Mitchelmore at 6s. or 7s. a day. Go by Weymouth, which is more practicable than by Southampton. Go to Sark also.—M.

3984. **Plates for Hand-Camera.**—The Ilford people make these of any size. Write them.—J. H. 3985. **Holland.**—See the Ilford Company's "Scraps" for May.—J. H.

3986. **Developer for Ilford Plates.**—The Standard developer given on the plate boxes is fairly good, but for a beginner has two drawbacks—liability to produce a thin yellow negative, and the small latitude allowed for over-exposure. No better result can be obtained with these excellent plates than by use of following:—

	Stock.	
Pyrogallie acid	... ..	1 oz.
Sulphite of soda	... ..	2 drms.
Sulphuric acid	... ..	$\frac{1}{2}$ dr.
Soft water, add to	... ..	15 ozs.

Dissolve soda in half-a-pint of hot water; when cold add slowly the sulphuric acid; pour the whole to the pyro, and fill up with the remaining water. For use, one ounce to four of soft water.

	No. 2.	
Liquor ammonia 880°	... ..	4 drms.
Potassium bromide	... ..	4 "
Soft water	... ..	1 pint.

In using, the best proportions are pyro developer, 2 parts; ammonia, 1 part; thus guarding against over-exposure.—L.R.X.

3986. **Developer for Ilford Plates.**—I have found the following to give splendid results. Make up

Liquor ammonia	... ..	4 drms.
Bromide potassium...	... ..	2 drms. 20 grs.
Water	... ..	4 drms.

Take 36 minims of this to 4 grs. pyro and 2 ozs. water. I have also got capital results with hydroquinone.—T. A. BLAKE.

3986. **Developer for Ilford Plates.**—By all means use the pyro formula given on label.—J. H.

	No. 1.	
Hydroquinone	... ..	160 grs.
Sulphite soda	... ..	2 ozs.
Citric acid	... ..	60 grs.
Bromide potassium	... ..	30 grs.
Water, to...	... ..	20 ozs.

	No. 2.	
Carbonate potash	... ..	2 ozs.
Washing soda	... ..	2 ozs.
Water, to...	... ..	20 ozs.

To develop take equal parts of each. An excellent formula for either negatives or transparencies. Make up at least twenty-four before use.—W. H. H.

3993. **Switzerland.**—Exposures in the snow and ice regions require to be very short indeed, unless the films are very slow. For most of such views, using, say, Ilford ordinary plates, and stop  $f/22$ , a slow shutter exposure would be about right. In towns, etc., the light is also very lively, but many gorges and similar places require plenty of time; there is a great temptation to under-expose such.—GREENWOOD.

3996. **Durham Cathedral.**—To photograph interior, apply to the Dean. The interior is rather dark. I was here in March, on a very dull and wet day, using Eastman paper, which is about the same rapidity as Ilford slow plates;  $f/22$  stop, and gave half an hour's exposure. On a bright day I should think half that exposure would suffice. The results were excellent. If you use glass plates, they must be backed.—W. H. H.

3996. **Durham Cathedral.**—No permission is required to photograph the interior of Durham Cathedral if you do it between the hours of 1 p.m. and 4 p.m. Make friends with the man in charge, treat him well, and he will also show you the Galilee Chapel. I obtained good negatives of both on June 19th, with stop  $f/11$ , using Castle plates, giving the former twelve minutes, the latter five minutes' exposure; give about half as much more, and develop slowly. Ilford plates would do very well, having used them for interiors.—J. E. E.

3998. **Killarney.**—In the **AMATEUR PHOTOGRAPHER** for August 9th, 1889, "F. F." will find a much fuller account of this region than could be compressed into this column; also in that for June 21st, 1889, some notes on Dublin and its neighbourhood. Ilford plates are obtainable in



Dublin and Cork, but probably not in Killarney, which is only a small country town. The existence of a dark-room is also doubtful; possibly there may be a local artist who would be willing to accommodate. If "F. F." likes to communicate with me through the Editor, we might arrange a meeting, assuming he is passing through Dublin within the present month.—GREENWOOD.

3998. **Killarney.**—The Muckross is a good house, and visitors can visit the abbey and grounds free. From Killarney to Glengarriffe is one of the grandest roads in Western Europe. The coach road ascends the Kerry mountains and passes through several picturesque tunnels cut through the rocks. Kenmare—half-way—is very pretty. Glengarriffe is by many considered even finer than the Killarney district. Stay at Eccles, from the front of which most beautiful views of the harbour and surrounding mountains are to be obtained. I cannot give information regarding dark-rooms and plates.—H. F. GRAINS.

4000. **Glass.**—"Toff Wall" can make a good dead black with French polish and lampblack. Place a little lampblack in an old saucer and add sufficient French polish to make the black into a liquid. Apply with a brush. Dries rapidly.—JOMIX.

4002. **Changing Bag.**—Read last week's **AMATEUR PHOTOGRAPHER** for full instructions for making a good and efficient changing bag.—F. POWELL.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

A. BROOKER.—Thanks for your letter; we have handed it to our publishers, who will send on copies.

JOHN A. WALTON.—Many thanks for the cutting from *Manchester Guardian*, and also your kind remarks upon Mr. Blanchard's articles on the "Stereoscope."

W.—Sorry you did not succeed in getting specimens from the firm. Thanks for notes about N. Wales.

NIGER.—Write to Mr. H. W. Primrose, H. M. Office of Works, Whitehall, London, S.W.

THISTLE.—We notice the forthcoming Exhibition of the Photographic Society of Great Britain, for 1890, in another column. It will be held in the Gallery of the Royal Society of Painters in Water Colours, and will be opened to the public on Monday, the 29th of September.

T. W. P. GIBSON.—The lenses referred to are ordinary spectacle lenses, and can be purchased of any spectacle seller.

F. C. A.—(1) It is claimed for the paper that it is as permanent as sensitised albumenised paper. (2) In order to avoid the "gloss," squeegee on ground glass.

H. H. COBB.—Why not use meta-bisulphite of potash, proportions same as pyro? You should be able to obtain good results with Burton's formula. The plates A are well spoken of, and, we believe, are thoroughly reliable; they are of German manufacture. The B plates are said to register 25 on the sensitometer.

C. A. T.—You have not made up your developer correctly. For every ounce of developer use of 10 per cent. solutions:—

Pyro...	...	...	18 minims.
Liq. ammonia	...	...	25 "
Bromide	...	...	5 "
Water, to make up to	...	...	1 oz.

Do not blame the plates, which are amongst the best in the market.

MICHAEL A. SCOTT.—The concentrated solution can be obtained of J. R. Gotz, 19, Buckingham Street, W.C.

M. T.—We should strongly advise you to purchase No. 2, which is a most admirable camera, thoroughly well made and reliable. An index is being prepared for the **QUARTERLY**, and "binding cases" will be ready and advertised shortly.

W. BARRETT.—We will wait till the matter is further advanced; we lent you the book, and have needed it for some time.

A JUNE COMPETITOR.—You have quite misunderstood our announcement; you do not send your name and address, therefore we cannot write you upon the subject.

THANKFUL.—We are very sorry, but really we cannot understand your letter.

SIDNEY WATKINS.—We are glad to hear that the paper answered your purpose so well; we will take care to remember your advice.

W. SHAW ADAMSON.—We should be very glad of the few particulars for the next issue of the **REPORTER**.

JAMES HILL.—Send the man a lawyer's letter.  
LEO.—(1) The firm you name can be relied upon.  
(2) Burnished steel would be best, we think.

H. C. HULL.—Take a half-plate photograph, and we can procure you a block made from print of same at 1s. 3d. per inch, or a minimum of 12s. 6d.

E. BRORTON.—Print out deeper and use the strongest bath.

TALBOT AND EAMER.—Certainly we shall be pleased to see the camera. Glad you took our suggestion about making the camera to take quarter-plates.

E. S. CLARK, M.B. (Natal).—We will write to you later. For your purpose we should advise B; it is well made and very compact. We do not care for any of the tripods you name, and should advise you to have a three-fold or two-fold of the ordinary type.

H. C. LEAKE.—We have used the camera, and do not find the faults you name. The front is perfectly rigid. The swing-back might be altered; we have not found any difficulty with the base-board. The other camera we do not know, but do not advise you to make a change. B is certainly the best plate for all-round work; you will find A exceedingly reliable. C we know very little of.

P. H.—We should advise B or C, both really good and useful books. Our publishers would supply either.

E. N.—(1) A, D, C, B. (2) I, F, K, H, G.

CAMERA.—The photographs are very commonplace. None of them show any special merit, and are not in any way up to the standard of those sent to our "Monthly Competition." Certainly send us MS.; if suitable, we shall be pleased to publish. It began on Friday, July 4th.

T. W. PROSSER.—We do not mention makers' names. See rules at the head of this column.

ROOPER LEVENTHORPE.—MS. received, for which many thanks.

LENSGRAPH.—Send us the lenses. Should advise an R.R. lens of good make.

J. JEFFREY.—Mr. Knight should, in our opinion, certainly have sent on the camera, etc., but he evidently thinks differently.

H. C. HAMILTON.—The matter must come before us in the ordinary course.

F. N. MAYNARD.—Afraid we cannot help you. Many good sets are advertised in the "Sale and Exchange" columns of this paper.

A. B.—A very good photograph and well selected subject. How long since the negative was taken?

EDITH A. CARTY.—We should like to see the negative. The subject is fairly posed, the hands are somewhat obtrusive, but as a whole you have secured a very fair picture.

D. SYDNEY GRAVES.—You will be quite pleased with 2. See that you get one of the latest brass bound, etc. It is a splendid camera. We should advise lantern No. 4.

S. E. K.—Don't write in riddles; say whose tripod you are referring to, and when the notice appeared in the columns of the **AMATEUR PHOTOGRAPHER**.

W. BROWN.—In the reducing of Alpha prints in the toning and fixing bath the prints, when first placed in the combined bath, appear suddenly to lose all their vigour. They become a pale yellow, or yellowish brown, and have a washed-out look; but as they begin to tone the vigour they appear to have lost gradually returns, and when finished they should be nearly the depth required when dried, for during drying there is to some extent a still further increase in intensity, and the tone also becomes somewhat colder, just as in the case of a wet albumen print when dried.

## Monthly Competition.

No. 14.

### LANDSCAPE WITH FIGURE.

Title of Picture.	Name of Sender
"Mid summer Hours, Unconscious of every Coming Storm"	G. R. Martin
Beddington Ford	W. Wessen
The Woodman	H. Taylor
Toiling Home	R. Clapham
Avenue, Canon Hall, near Barnsley	F. Craven
Joryns Summer	L. Leeder
The Village School, Playtime	A. W. Gottlieb
Houses at Clappersgate	Mrs. E. Peel
Young Naturalists	W. W. Fry
On Loch Lomond, Inversnaid Pier	C. V. Shadbolt
The Sun was Sinking in the West	J. Harriman
On the Borders, Ayrshire	A. M. F. Dunn
In the Alexandra Park, Hastings	G. J. Elphick
Bungerley Bridge, Olitheroe	E. Buck
He Cometh not, she Said	J. E. Dumont
In Bolton Woods, Yorks	E. R. Tate
Old Tower, Yarmouth...	C. E. Hare

Title of Picture.	Name of Sender.
Monks' Bridge, near Southampton	F. W. Brookman
Bolton Hall, Wharfedale	H. G. Brierley
A Quiet Canal, Venice	T. Langton
Whittington	G. Kempsey
View in Morton Woods, Yorks	G. W. Beardsell
Hotel Cappucini, Almalfi, South Italy	W. R. Shute
Fairy Tales	Mrs. Bain
The Woods, Colwyn Bay	R. H. Shawcross
A Rest by the Way	H. A. Gee
Green Walk, Floors Castle, Kelso	W. H. Fisher
Dollis Brook, Finchley	J. H. Thornton
Village Smithy, Ballinlulg, N.B.	W. Gibbard
Norfolk Homes	H. D. Arnott
Sunnyhurst Wood, Darwen	H. W. James
Anticipation	A. R. F. Evershed
Balmoral	W. H. Whittard
At Thames Ditton	F. Alcock
The Rocky Dell	J. G. Cleaton
Mowing	J. G. Jones
Fishing	T. H. Sanderson
Below the Strid	J. C. Pegg
A Glimpse of Bliton Church	Mrs. Malcolm
Evening	Evans Griffiths
On the Meander (Sokla)	D. Forbes

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill, London, E.C. Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the **AMATEUR PHOTOGRAPHER** will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the **AMATEUR PHOTOGRAPHER**, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

"**Amateur Photographer.**"—**AMATEUR PHOTOGRAPHER**, numbers 248 to 300, for sale, cheap; what offers?—X. M. N., 2, Forest Villas, Salisbury Road, Walthamstow.

**AMATEUR PHOTOGRAPHER**, 180 numbers, from January, 1887, up to date; 7s. 6d.—Walker, Scotchholme, Nottingham.

**Cameras, etc.**—E. Darlington, Photographer, Shortlands, is commissioned to sell and has on view the photographic apparatus the property of late H. B. Berkeley, Esq., including cameras and lenses by best makers, and a lot of useful sundries.

Half-plate mahogany box camera, brass-bound, dark-slide and focussing slide, fitted with cabinet lens (by Lerebour and Secretan); 25s., or 10s. 6d. and 15s. 6d. respectively; worth double; cabinet photograph of machinery taken with them, four stamps.—O. Dawson, Agent, Hednesford, Staff.

Half-plate camera (Ashford's), three slides, 60s.; wanted, Eastman's roll-holder, 7½ by 5.—Shaw, 5, Great Ancoats, Manchester.

5 by 4 Blair's patent camera, four backs, every possible movement, in best case; complete, £5; cost £3.—Hodges, 87, Chancery Lane, London.

**Camera, Lenses, etc.**—Must sell. All bargains. Half-plate bellows camera, reversible swing-back, rising and falling front, with double dark-slide, 30s.; whole-plate view lens, 7s. 6d.; splendid quarter-plate portrait lens, 25s.; massive carte-de-visite rolling press, 7s. 6d.—Mrs. Borrows, 16½, Airton Street, Stockton-on-Tees.



**Changing Bag.**—Changing bag, half-plate, new; 5s., free.—Camp, 48, Plassey Street, Penarth.

**Dark Slides.**—Two mahogany dark-slides, to fit Lancaster's 1886 Special camera, quite new; 13s.; approval; deposit.—Geo. Billy, The Stores, Uttoxeter.

**Double Backs, etc.**—Three mahogany double backs, lantern size, 6s.; will exchange for 10 by 8 ebonite trays, or with cash for good quarter rectilinear.—Smith, 393, Alfretton Road, Nottingham.

**Hand-Cameras.**—Key hand-camera for sale, brought out by Platinotype Co., nearly new, in perfect working order, most compact and effective detective in market; only 90s. to immediate purchaser; cost seven guineas.—Alpha, 51, Church Road, St. Leonards.

**Hand-Cameras, etc.**—Shew's half-plate Eclipse pocket camera, splendid lens, double back, complete, finest order; great bargain, 45s.—Benwell, 3, Headstone Terrace, Harrow.

Stirn's waistcoat detective camera and plates for 105 exposures; 20s.; perfect, as new.—Knight, 13, Albion Street, Leeds.

Whole-plate Wood's instantaneous, complete with shutter and stand, original cost £7; almost new; what offers? Also Kodak in good condition; original cost £5 5s.; what offers?—Write direct to Thomas Dunn, St. Thomas's Seminary, Hammer-smith.

Watson's quarter-plate detective camera, three double backs, equal new; cost 10 guineas; price 7 guineas.—Bygrave, 15, Canterbury Road, Brixton, S.W.

Hand-camera, 12 quarter-plates, mahogany, new.—Chick, 24, Woodbridge Street, E.C.

No. 2 Kodak, with light tripod, new in May, perfect; £6 5s.—Letters only to W., 379, Strand, London.

Capital hand-camera, R.R. lens, and diaphragms, quarter-plate; 40s.; or exchange for good half-plate Instantograph; write for description.—T. Eaton, Victoria House, St. Saviour's Road, Leicester.

Two hand-cameras, walking-stick tripod, complete outfit, for sale, cheap.—Ed. Mason, Askrigg, Bedale.

**Lenses.**—Pair Dallmeyer's stereoscopic lenses, with stops, Nos. 2869 and 2868; what offers above £5? Also a Ross 8 by 5 symmetrical; 60s.—Piggins, 95, Old Kent Road, London.

Taylor's single lens, 15 by 12; 60s.—Butler, 127, Bute Road, Cardiff.

For sale, a 5 by 4 Optimus extra-rapid Eury-scope, quite new, never been used; cost £3 3s.; will take 45s.—S., 22, Chetwynd Road, London, N.W.

Will sell or exchange Ross' No. 4 P.S. lens; want rapid landscape, about 15 ins. focus, good maker.—T. Barlow, Clonmel.

Pair of R.R. 5 by 4 lenses, 25s.; paired stereo set of four brass-mounted stereo eye-pieces, for magazine stereo cabinet, 10s., cost double; wanted, Ross' portable symmetrical.—Collins, Chalfont, Bucks.

Whole-plate portable symmetrical, 6 in. focus, works f/8, 30s.; Optimus 7 by 5 R.R., 38s.; 5 by 4 ditto, 26s.; Ross' single view lens, 4 in. diameter, 21 in. focus, £2.—Pedder, Gold Hill, Gerrard's Cross, Bucks.

Dallmeyer's 1B, £3; 2B, £6; Voigtlander's extra quick-acting carte, cost £23, sell for £4, all in good condition; take in exchange Ross' portable symmetricals.—Collins, Chalfont, Bucks.

Hockin's half-plate R.R. lens, cost 33s., sell 23s.; also Lancaster's half-plate wide-angle, cost 42s., sell 32s.; both equal to new.—Kelly, Printer, Uttoxeter.

**Lens and Shutter.**—Half-plate Instantograph lens, Iris diaphragm, patent shutter, perfect condition; 18s. 6d.—A. Goswell, Wokingham.

Quarter-plate Instantograph lens and shutter, nearly new, really good instrument; cost £1 1s.; what offers?—Lawrence, 77, Carlisle Street, Cardiff.

**Papryograph.**—Zuccato's Papryograph, little used, with instructions, materials, tools, as supplied by makers, in locked box, licence and receipt for cost (£5 15s.) included; will exchange for good hand-camera (Facile preferred) or roller backgrounds.—Walker, Tobacconist, Stockport.

**Printing Machine.**—Will exchange printing machine, complete, for one Tylar's half-plate metal slide.—Thomas Millburn, Battle Hill, Hexham, Northumberland.

**Sets.**—Underwood's half-plate Instanto camera (1888), one double dark-slide, tripod, with rapid rectilinear lens, f/8; cost £5 5s. as new; bargain, 67s. 6d.—John Slade, Slad Road, Stroud.

Camera, bellows, 10 by 8, with four double backs, cone extension, tripod stand, inner frames, Sergeant's and Marshall's shutters, view finder, baize bags for dark-slides, and box for camera; to be sold a great bargain.—Apply at Stanley's, 13, Railway Approach, London Bridge, S.E.

Rouch's 5 by 4 portable camera, three backs, tripod, solid leather case, Dallmeyer's 8 by 5 rapid rectilinear, with shutter, Optimus 5 by 4 rapid rectilinear and shutter, Optimus 5 by 4 wide-angle doublet, plates; cost £18; practically new; will divide.—Thelwell, Sledmere, York.

Apparatus, one whole-plate complete outfit, also two whole-plate lenses by Ross, all nearly new; will take £7 10s.; cost double.—V. F. Pritchard, Pembroke Barracks, Ireland.

On sale, a bargain, McKellen's half-plate camera, complete, three slides, tripod, and Laverne lens, first-class condition; what offers?—M., 40, Fitzroy Road, Regent's Park, London.

Half-plate camera, stand, good landscape lens, swing-back; photograph sent for approval; 30s.; or exchange for rectilinear lens.—Heeley, 169, Coventry Road, Birmingham.

9 by 7 mahogany camera, conic leather bellows, rising and swing front, double extension, with one double, one single slide, and carriers for half-plates, Darlot's rapid rectilinear lens, with stops, drop shutter, with pneumatic release, folding ash tripod and knapsack, also few sundries; price £8 the lot; a rare opportunity.—B., 59, St. Thomas Road, Finsbury Park.

Watson's Acme half-plate camera, with five double dark-slides and Eastman's roller slide, three-fold tripod, with sliding bottom joint, and solid leather case, Taylor's 8 by 5 view lens, Ross' 8 by 5 rapid symmetrical, Ross' No. 3 portable symmetrical, Thornton-Pickard time and instantaneous shutter and exposure meter, condition as new, cost £30 3s., price £22; Rouch's Eureka 5 by 4 hand-camera, with two finders, alpenstock stand, and solid leather case, equal to new, price £8; Lancaster's enlarging lantern, with 8 in. condensers and four-wick lamp, price £5.—Townsend, Attleborough Lodge, Nantwich.

Half-plate camera (by Theobald), good lens, double dark-slide, and stand; 25s.; approval.—Nokes, 105, Berridge Road, Sheerness.

Le Merveilleux quarter-plate camera, lens, tripod, double dark-slide, lamp, scales, weights, chemicals, everything complete, enlarging camera to 8 by 10 or 10 by 12, new; the lot 40s; no approval.—63, West Holborn, South Shields.

Half-plate McKellen's treble patent camera, four double backs, Eastman's roll-holder, tripod, Grubb's applanatic doublet lens, Cadet's lightning shutter, view-finder, focussing cloth, dishes, printing frames, focussing glass, leather bag with lock, everything in perfect condition; cost over £25; sell for £15.—Pearne, Customs, Cork.

For sale, Watson's Premier camera, 12 by 10, three double backs, tripod stand, also 10 by 8 Beck's Peccops camera, three double backs, extra-strong legs, solid leather case for camera, another for backs and lenses, all these quite new, recently purchased; studio stand, mahogany, cost 70s.; Ross' 3A portrait lens; 11 in. Beck's W.A.R. lens.—Apply, O., care of Housekeeper, 93, Bishopsgate Street Within, City.

Quarter-plate Meritoire (Lancaster's), including good lens, slide, and stand, new in May; 27s., or offers.—F., 8, Portland Place, Vennor Road, Sydenham.

Fallowfield's half-plate camera, stand, two slides, carriers, shutter, four lenses, rolling machine, 6½ in. burnisher, whole-plate box camera and slide, printing frames, dishes, bottles, lot of chemicals, etc.; £5 10s.—Randle, Crown Street, Kettering.

**Sundries.**—Opera glass, defining clearly for indoor and field work, very portable, leather case and strap, a really beautiful little glass, 25s.; Newton's panoramic wide-angle lens, 4 in. focus, for quarter plate, 25s.; Beck's 5 in. rapid rectilinear, Iris diaphragm, fitted Newman's shutter, pneumatic tube, 85s.; Sciopticon lantern, objective, three-wick lamp, carrier, dissolver, transparent screen on stand, suitable display slides in own drawing-room or small hall, perfect condition, in polished case, 90s.—Christian, 77, Tower Buildings, Liverpool.

For sale, burnisher for cabinets, cash 8s.; also four stoppered bottles and three porcelain dishes, cash 4s.; also a good, strong folding stand, cash 4s.—James Morton, 25, Montague Street, Olitheroe, Lancashire.

Violin.—Old copy Strad, fine tone; wanted, half-plate 1888 Meritoire, perfect.—Pullen, West House, Goudhurst, Kent.

## WANTED.

**Camera.**—Stereoscopic camera, with latest improvements, by first-class maker.—Send full particulars and price to W. Walker, Scotchholme, Nottingham.

**Camera, Lens, etc.**—Lancaster's half-plate 1890 Instantograph camera and lens, and three double dark-slides, book pattern, must be in first-class condition; approval; state lowest cash price; write.—Instantograph, 3, Paddington Street, Baker Street, W.

**Hand-Cameras.**—Kodak, No. 2, in good condition, moderate price.—W. Mudie, 52, Park Road, New Wandsworth.

A No. 2 or 3 Kodak or Swinden and Earp's hand-camera, in good condition.—F. R. Ley, 78, King Street, Manchester.

A good quarter-plate hand-camera; state lowest price and make.—T., 14, Atkinson Street, Manchester.

Hand-camera, quarter-plate.—Rev. Mr. Thomson, Viewmount, Galashiels.

Hand Camera, etc.—Shew's Eclipse hand-camera, also stand and enlarging apparatus.—Edwyn Tart, Marden Vicarage, Hereford.

**Lenses.**—Wide-angle rectilinear lens, about 7 ins. focal length.—A. Macfie, Dhucraig, St. Andrews.

A thoroughly good, sharp, and rapid cabinet portrait lens, must be cheap; approval required.—Barnes, 114, High Street, Bromley, Kent.

Half-plate R.R. lens, by good maker.—J. Thomas, High Street, Newport, Mon.

**Lens and Shutter.**—Wide-angle lens and pneumatic shutter for half-plate.—Samuel Kendon, Goudhurst.

**Sets.**—Complete half-plate photographic kit, including dark-tent and sundries.—Send fullest detailed particulars and price, which must be low, to Maynard, 12, Hamilton Terrace, Southampton, West.

First-class half-plate outfit, rectilinear lens—State full particulars, makers' names, and lowest price for cash to Camera, The Abbey, Windermere, Westmoreland.

10 by 8 camera and slides, and stand, also wide-angle lens; approval.—Parker, Woodhouse Grange, Loughborough.

Quarter-plate outfit, with four or six slides.—Barrow, Pudsey.

**Shutter.**—1½ in. Thornton-Pickard time-instantaneous shutter, cheap.—Batty, Denman Drive, Liverpool.

**Tripod.**—Tripod stand for half-plate camera, must be very light and compact; state length when closed, weight, and price.—Bruyn, Kingsteignton, Leigham Court Road, Streatham.

**Tripod, etc.**—Wanted immediately, tripod, three-fold or sliding, light and rigid, for quarter or half, cheap; also loan of two quarter backs for Instanto (Underwood's).—Wright, Rogers Street, Blackhill, Durham.

## "Amateur Photographer" Monthly Competition.

### No. 15.—GENRE OR FIGURE STUDY.

### Prizes—Silver and Bronze Medal with Ribbon and Clasp.

ONE PRINT ONLY. Must be sent in on or before the 14th August, endorsed "Monthly Competition," etc., to

THE EDITOR, "AMATEUR PHOTOGRAPHER," 1, CREED LANE, LONDON, E.C.



# The AMATEUR PHOTOGRAPHER

Telephone No. 1645  
Telegraphic Address: VINEY, LONDON  
Edited by CHARLES W. HASTINGS

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FRIDAY, JULY 25, 1890.

[PRICE TWOPENCE.]

## ✿ OUR VIEWS. ✿

To hold as 'twere the mirror up to nature."—Shakespeare.

WE have now the pleasure to announce the prizes awarded for the July AMATEUR PHOTOGRAPHER Monthly Competition No. 14, "Landscape, with Figure," as follows:—

*First Prize* . . . H. DUDLEY ARNOTT.

The print sent in is entitled "Norfolk Homes," and shows us several cottages, with mother and children at the gate of one, admirably grouped and apparently quite unconscious of the assistance they are lending to Mr. Arnott to make up his picture. At the cottage door, in the middle distance, we have a boy with pussy in arms, looking out to see what has happened. This picture will be reproduced in the September number of the *Photographic Reporter* as a frontispiece. It was taken with a Ross 12 by 10 R. S. lens on a Fry 60 times plate, printed in platinum by Clark's process.

*Second Prize* . . . D. FORBES.

This photograph, which is exceedingly good, shows us the "Banks of the Meander." In the foreground we have a camel resting, the middle of the picture being taken up by a ferry boat which is being hauled across the river, and on the opposite bank we have a number of camels, the background being the distant hills. The picture is well composed, and reflects much credit upon the competitor, who is working far away from anyone to help and guide him.

Mr. Cecil V. Shadbolt sends us a delightful view, "On Loch Lomond, Inversnaid Pier," printed on Aristotype paper squeegeed on ground glass and printed in imitation of a sepia drawing, the tone being admirably rendered.

From Mr. Walter Wesson we have received a capital photograph of "Beddington Ford," taken on an Ilford plate, with an Optimus Euryscope, printed in platino-type. Further particulars of the competition will be published in the *Reporter* for August, in which number the frontispiece will be a Woodbury print of Mr. J. Kidson Taylor's photograph "On the Goyt, near Buxton."

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THE use of the detective or hand camera from a legal point of view has not, we believe, been decided. A correspondent writes:—

"A friend took a detective camera to an open-air entertainment, and while focussing was requested by the manager to desist. We, of course, acquiesced; but I should like to know, had he persisted, whether the Manager had a legal right to do so. Since the use of these cameras is becoming so general, it would be interesting to know whether their application is always

permissible, or as to when restrictions should be placed on their use."

We shall be pleased to have the views of our readers upon the point raised by our subscriber. In our opinion the manager was perfectly justified in asking the operator to desist. Snap shots have their uses, but we all know that they have their abuses also.

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THE August number of the *Reporter* will contain the first of a series of articles upon "Rules of Art applied to Photography." They are written by one who knows, and will be published anonymously until completed.

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WE are asked to state that a preliminary meeting will be held with reference to the formation of a photographic society for Tooting and district on Tuesday, July 29th, at the Institute, Merton Road. The chair will be taken by Mr. G. H. Dollery.

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A NOTICE of the forthcoming exhibition of the Royal Cornwall Polytechnic at Falmouth will be found in our advertising columns. Mr. W. Brooks, Laurel Villa, Wray Park, Reigate, will be pleased to give particulars.

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It is intended to hold a "Second Exhibition of Photographs" in the Queen's Park Public Free Museum and Art Gallery, Manchester. The exhibition will be under the direction of a Committee consisting of the Mayor, Aldermen, and Councillors of the city of Manchester. The Curator, Mr. Charles George Virgo, of the Museum, will forward particulars on application. The exhibition will be opened next September and close early in January, 1891.

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MR. F. W. BIGGS, of 151, High Street, Stourbridge, writes us in regard to the formation of a photographic society for Stourbridge and district. He will be pleased to hear from any of our readers who may be willing to assist him in carrying out the project.

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MR. A. D. GUTHRIE, winner of the third prize in the "Travelling Studentship Competition," writes, "I am in receipt of your kind favour, and note its contents with much pleasure and gratification. I feel greatly honoured by the



award that has fallen to the lot of my humble efforts, and which will give a great stimulus to my future work."

\* \* \* \*

A CORRESPONDENT calls our attention to a note which appears under "The Month: Science and Art," in *Chambers' Journal* for the 28th ult. The contributor of the notes is a worker in photography, and well known as a writer upon photographic matters. The note reads:—

"We were recently shown the photograph of the interior of a church which possessed a remarkable peculiarity. The church had at its further end a lancet window, leaded in diamond-shaped panes in the usual manner. This window was correctly reproduced in the picture; but in another dark part of the photograph, a ghostly image of the window was repeated. We were assured that the ghost was on the negative, and it was a puzzle to all who saw the picture by what accident the spectral window had appeared where it did. Mr. Dallmeyer has recently shown, in a paper read before the Photographic Society of Great Britain, how such images are produced. The brilliant image of the window focussed upon the white surface of the photographic plate while the camera is in action, is reflected therefrom upon the convex surface of the lens, and is then reflected back from the lens to another portion of the plate. There are so many amateur photographers among our readers that we think this explanation of a phenomenon which may occur under certain conditions to any one of them may prove to be acceptable."

These "ghosts" or "reflections" frequently come under our notice, and it has always been a puzzle as to how they occur, and to account for their presence. Perhaps some of our readers will give their experience.

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#### THE NEW GALLERY.

THE display at the New Gallery this year recalls the impressions of the Royal Academy rather than those of the Grosvenor Gallery; the strong individualities of the latter are absent, yet there is a good deal of the refined talent that is to be found in the former, without such a multitude of canvases to search through to discover it; moreover, the Regent Street Gallery, not perhaps so much by reason of the pictures exhibited as from the surroundings of those pictures, possesses an air of aristocratic leisure which is restful after the crowd and turmoil of Burlington House.

There are a considerable number of interesting "subject" pictures, but the landscape is especially attractive for its excellence, as in the other picture shows of the year, and we often find ourselves brought up suddenly before some charmingly truthful piece of moor, fen, or forest, in which we recognise the work of one of our giants of landscape painting. It is unfortunate for Mr. Padgett that his picture (No. 2) should be placed so near Mr. Waterlow's No. 6. Both are moonlight scenes, but the former is very feeble, and a work of no merit in selection—a most unpromising piece of the Sussex Downs which the artist has not possessed the skill to clothe with the beauties of a harvest moon. No. 6, on the other hand, is really moonlight, and the hustling and huddling of the sheep as they are driven into the pen is very natural. In No. 8 the colour of the serpent is somewhat vivid, and we cannot help thinking that the shadows are not deep enough for the shades of a tropical jungle. No. 11 is purely decorative and of no value to the photographer except as a study of pose and drapery. "All on a Summer's Day," No. 19, by Buxton Knight, is a pretty landscape with a river that reminds us of the reaches below Oxford; but the clouds are too much insisted upon to be true to nature. No. 27 is called in the catalogue an "Upright Landscape," and it is truly named, for it is as stiff and hard a parody of nature as could well be found. No. 31 is a picture of "Ariadne," by G. F. Watts. This artist has a style of his own, which never commends itself to us, but it suits this class of subject

better than the broken-down steed which he exhibits in the Academy this year. In 37 we have some impossibly blue mountains; in 48 a clever and natural rendering of the effect of clouds behind trees, by Edward Archer. No. 46 is one of the most taking landscapes, "A Bean Field," by A. Parsons; it is seldom that we have seen anything so successful as the tender pink of the sky, the grouping of the figures, and the lighting of the whole composition—it is quite a lesson. Close by are three little pictures by Alma Tadema, Nos. 51, 52, 53, of which the first is the most satisfactory; notice the admirable painting of the purple clematis. 64, "Portrait of Sir Alfred Lyall," by Shannon, is the best of its class in the gallery; it is full of force and character. Compare it with No. 66, which is nothing better than a picture of a satin gown. 72 is purely imaginative and allegorical, but technically a success. In 77 we find again the real truth and beauty of English landscape; this is one of Mr. Murray's pictures, but in it he is not seen quite at his best, and in both this and in No. 142 we cannot help regretting the position of the figures—the angler in 77 is certainly misplaced, and in 142 the cow standing behind the tree, almost in the centre, is clumsy, and attracts attention too much. Notice 83, and, in the North Room, Mr. Hunt's picture of Windsor—rather too grey in colour perhaps. 93 has too little feeling; 96 is forcible and original; in 95 we see that Mr. Padgett did not do himself justice in No. 2. In 97 Mr. Stokes has arrested a wave at the right moment, and for those who are interested in marine painting or photography, it is worth while to recall the collection of pictures by the Russian painter, Aivasovsky, at the Goupil Gallery in Bond Street; these—some of them, at least—must have been painted before the invention of instantaneous photography, and it is interesting to compare them with the work of Moore, of Wyllie, or of Stokes, who have been able to benefit by the latter-day progress of our particular science. The later works of the Russian artist differ markedly from his earlier pictures, showing that he too has profited by photography. We are convinced that in 103 the sea is brought up too near to the wall. Nos. 109 and 112 should be looked at, and 113 is a clever figure study. Sir J. Millais is hardly successful in his "Dew-drenched furze;" to a photographer the mist through the bracken looks suspiciously like halation, and it is curious that the effect of the dew should not be apparent in the foreground. No. 132 is exceedingly realistic; the horse looks as if it were trotting out of the picture. In 133 we have one of Mr. East's landscapes, but far from one of his best efforts; the heron is good though. Miss Dorothy Tennant's picture (170) attracts considerable attention just now; it is certainly a first-rate *genre* study; but street Arabs seldom have such clean faces and hands—the dirt is part of their picturesqueness, perhaps. No. 176 is disgraceful; it is a water-colour of the Cathedral of Leon, Spain; the architectural lines are crooked everywhere. 174 is charming, and 180 has considerable merit. 188 is terribly ugly, and about as unnatural and untruthful a piece of work as is to be found this year in the galleries. Nos. 206 and 213 are portraits, the former as bad as the latter is good; Mr. Hallé has robbed Sir C. Russell of all the life and character in his face; Mr. John Burns, on the other hand, looks the thorough-going demagogue he is. 217 is an architectural interior, with a shamefully-crooked pillar on the left. About 255 the less said the better. 269 is a well-chosen piece of mountain scenery. 274 and 397 are two of Theodore Wore's Japanese studies—too finicky, with no breadth of conception, we think. In the balcony there are several interesting studies of heads, 288 and 306. No. 303 gives a good idea of Segovia—perhaps the most picturesque city in Spain after Grenada. Nos. 376, 391,



and 392 all have an interest. On the whole, a pleasant afternoon can be spent with the pictures in the New Gallery, and if the photographer carries away the lesson of No. 46 only, and applies it, it will not be an afternoon wasted.

## Letters to the Editor.

### "F. G. S." AND THE CONVENTION.

SIR,—It is usually unnecessary to reply to anonymous criticisms, especially when animus is so evident as in the case of the remarks of "F. G. S." anent the Convention, because sensible people have no difficulty in estimating such criticisms at their true value. However, mud is apt to stick, to some extent at least, no matter who throws it, and since the criticisms relate to matters with which I am intimately connected, I shall be glad if you will allow me to trespass on your space. I will endeavour to avoid the sarcasm which grates upon the representative of "Hoi Polloi," I will confine myself, as far as possible, to the facts, and I will sign my own name at the end of my letter.

Your correspondent "F. G. S." says that he wishes the Convention no harm, but he adopts a very peculiar method of showing his good-will. He first does the members of the Convention the honour of comparing them to the tailors of Tooley Street, and then says that the cause of the Convention is too weak for even Mr. Pringle to bolster it up! Anonymous assertions of this kind are distinctly amusing, coming as they do immediately after a meeting which is regarded as highly successful by every one who was there, and after the entire photographic Press has expressed its opinion that the Convention is now on a firm basis and is doing good work. It is true that the numerical strength of the Convention, though much greater than "F. G. S." estimates it to be, is not so large as we should like to see it, but in all associations of this kind we have to look to the quality of the people composing it rather than to their mere numbers. Here is a list of a few of the men who have been connected with the Convention during the last two years—many of them, in fact, from the beginning: W. Bedford, C. Beck, V. Blanchard, Gambier Bolton, F. A. Bridge, W. J. Byrne, F. P. Cambrano, jun., A. Cowan, T. R. Dallmeyer, G. Davison, A. R. Dresser, W. England, B. J. Edwards, S. H. Fry, J. Gale, Friese Greene, A. Haddon, W. H. Harrison, Charles W. Hastings, H. M. Hastings, M. J. Harding, A. L. Henderson, J. S. Hodson, F. Hollyer, Dr. G. Lindsay Johnson, Payne Jennings, R. Keene, R. Kidd, A. Levy, W. Lang, jun., P. Lange, G. Mason, T. S. Mayne, A. Mackie, A. J. Melhuish, H. S. Mendelssohn, A. Pringle, W. H. Prestwich, H. P. Robinson, B. J. Sayce, T. Samuels, H. Sturmeay, J. Spiller, J. B. Spurge, J. Traill Taylor, W. Taylor, A. Tate, G. Watmough Webster, J. B. B. Wellington, W. H. Walker, W. Willis, A. Werner, Sir H. Trueman Wood, S. G. B. Wollaston, F. York. Have any of the readers of the AMATEUR PHOTOGRAPHER heard any of these names before? As a matter of fact the Convention includes amongst its members not quite, but very nearly, every one who is known as a worker in the cause of photography, as such, and as distinct from his own individual interests.

We are then told that it is ridiculous for the Convention to appoint Committees to determine questions which affect tens of thousands of workers. I was under the impression that the value of a Committee depended upon the calibre of the men composing it, rather than upon the organisation by which it was appointed. This much is quite beyond dispute, that photographers have to thank the Lens Committee of the Convention for rousing the leading opticians to a clear sense of the necessity of promptly taking measures to ensure uniformity in lens fittings. "F. G. S." also quotes an entirely unfounded statement of Mr. Warnerke's, with reference to the report of the Committee on Weights, Measures, and Formulæ, but this quotation has no importance except that it illustrates the real character of the attitude of "F. G. S." towards the Convention and all that it does.

Now, as to Mr. Newman's paper. "F. G. S." asserts that it was simply a savage personal attack on Dr. Emerson, and in this view he is supported by another anonymous contributor, who assumes that he is entitled to pose as the representative of "Hoi Polloi." Mr. Pringle challenged "F. G. S." to find a single word personal to Dr. Emerson in the whole paper, but this challenge "F. G. S." finds it more convenient to ignore. I repeat the

challenge. Mr. Newman's paper was undoubtedly a very severe criticism of Dr. Emerson's views as expressed in "Naturalistic Photography." I have understood that when a man expounded his views in published articles or books, those views became public property and were legitimate objects of criticism, whether favourable or unfavourable. Surely a writer of science notes should be able to distinguish between criticisms of a man's published statements and opinions, and criticisms of the man himself, which alone can properly be called personal. Whilst I cannot agree with all Dr. Emerson's views, I am quite alive to the important services which he has rendered to the cause of photographic fine art, and I am inclined to think that an author who has talked of the "sickly sentimentality" and "puerile conceptions" of Raphael, who has told us that "Van Dyck is often wood itself," and who has attacked in an equally vigorous manner many artists whom hundreds of his fellow-men hold in reverence, will not be afraid even of criticism of his own views if couched in equally strong language; I am quite certain he has no right to complain.

"F. G. S." states that he has been informed that "no discussion was allowed" on Mr. Newman's paper. He puts the statement in italics, and, in that gentlemanly way of his, evidently wishes to convey the idea that discussion was deliberately and intentionally burked.

The fact is simply this: on the same evening Mr. P. Lange was to give an account of his photographic tour in Norway, and he had been promised that his paper should come on not later than 9 p.m., in order that he might catch his train home, because he was starting for Iceland the next morning. The reading of Mr. Newman's paper was finished a few minutes past nine, and it was necessary to call upon Mr. Lange at once. I pointed out, however, that the book criticised had been published for nearly two years (published, I would remind "F. G. S." "without the antidote which a discussion would have supplied"), that Mr. Newman's paper would be published *in extenso*, and that the columns of the photographic journals were always freely open for the discussion of such topics. I have no doubt that you, Sir, would print a critique of Mr. Newman's paper just as readily as you printed the paper itself. It might have occurred to "F. G. S." and the representative of "Hoi Polloi," that if the paper had been the savage personal attack which they assert it to be, no editor with any respect for the law of libel would have ventured to publish it. It has, however, appeared in all the weekly photographic papers.

Finally, "F. G. S." has the impertinence to suggest that because Dr. Emerson did not become a member of the Convention, it was arranged by Mr. Pringle, or the Council, that an attack should be made upon him. I feel sure that it is quite unnecessary to say that such a suggestion is absolutely without the slightest foundation in fact. Mr. Newman was asked to read a paper before the Convention, because a very able paper by him on the relation of art to photography had appeared in the *Photographic News* early in the year. The line which he intended to take was unknown to any member of the Convention until his MS. was received.

When gentlemen make suggestions or insinuations like that made by "F. G. S.," they usually deem it incumbent upon them to append their own names. Such suggestions made anonymously have no weight with any right-thinking man; they only damage and bring discredit upon the maker of them.

Leeds, July 21st, 1890.

C. H. BOTHAMLEY.

SIR,—The Convention needs no "bolstering up" from me, for it is doing good work, and will do better. If the executive thought or claimed that the management was perfect, then, indeed, I should have little hope for its future. But this is no excuse for "F. G. S." laying blame where no blame is, and finding faults which he invents simply to throw at us. He wrote that the paper by Mr. Newman was a "savage personal attack on Mr. Emerson." The paper was published in full in your columns, and, as anyone can see, there is not a syllable of personal attack in it. Does "F. G. S." really ask your readers to accept as proof of personal attack the fact that Dr. Emerson's name is mentioned "about forty times" in the paper criticising Dr. Emerson's *book and works*? This is surely rather too flimsy an argument. In this week's AMATEUR PHOTOGRAPHER "F. G. S." goes a step farther, and brings up against us a letter by M. Warnerke to other journals, wherein M. Warnerke hangs his arguments on words



we never used, and puts in inverted commas phrases not to be found in either fact or substance in the report he professes to criticise. (See Mr. Bothamley's replies to M. Warnerke in other journals.)

"F. G. S." says *he knows* that "Dr. Emerson declined Mr. Pringle's invitation to join the Convention movement." I should like proof of this; if proof is not forthcoming, your readers will know what to think of "F. G. S." I have no recollection nor record of any such refusal; but even if I did get a refusal from Dr. Emerson, I don't think I should have been so affected as to have sworn an oath of vengeance, and carried on the vendetta for years.

"F. G. S." has a funny idea of "confirmation." On July 4th he wrote that a certain instrument showed the rapidity of emulsion on certain films to be 314 times that of wet plates. I suggested that this story might be suitable for the Marine service, and the "confirmation" of the statement is to be found, according to "F. G. S.," in a letter alongside of mine, wherein the inventors of the machine state that the rapidity of the same film tested by the same machine is 314 times that of a wet plate! In other words, the statement confirms itself! Oh, sapient F. G. S.!

If "F. G. S." will substitute, for his words "no discussion was allowed" on Mr. Newman's paper, "no discussion was possible," his criticism will be fairer and equally accurate. Mr. Lange's paper had to begin at nine o'clock that he might catch a train to Liverpool, and it was plainly impossible to discuss so long a paper on such a subject. As the President said, the paper is fully open to *fair* discussion in the journals, but it is not fair discussion, nor discussion at all, to say the paper was a "savage personal attack." I would very much like to see the paper discussed in your columns.

Replying to "One of Hoi Polloi," the question is not one of impression, but of fact. Is Mr. Newman's paper a personal attack or is it not? The paper is in your issue of July 11th. If it is personal, my definition of personality is false, and I shall have to retract. If it is fair criticism of a book and of work, "F. G. S." and "One of Hoi Polloi" owe Mr. Newman an apology.

#### THE ACTION OF LIGHT, ETC.

Through the courtesy of Messrs. Hurter and Driffield, I have had the opportunity of studying their pamphlets on this subject. I congratulate them on a very ingenious instrument, and on researches which for care and method are a model to photographic investigators. I cannot speak too highly of the spirit and talent which guided these workers, but that is not to say that I accept or endorse every result they claim to have achieved. I certainly do not accept the statement that any gelatine emulsion has ever been used, or ever made, that can be called 314 times as rapid as wet collodion, nor indeed anything approaching to 314. If special conditions of light are involved (coloured light, for instance), the fact should be stated, but I gather from their writings that they used candle light, which vitiates the results at once for ordinary photographic purposes. Nor do I accept their statement about invariability of results, whatever modifications of any developer be used; nor their statement that intensification does not alter gradation of density. I had no intention of offending these gentlemen by a "credulous, not to say sneering" tone; all the same I differ from them, and will be glad to discuss these matters with them in another place. It is one thing to discuss a matter of science with scientists, and quite another to defend an institution against attacks by veiled and apparently prejudiced writers. —I am, your obedient servant,

ANDREW PRINGLE.

\* \* \* \*

#### ACHROMATIC SINGLE LENSES.

SIR,—Mr. Traill Taylor's letter to the Eastman Company, published in your last issue, is (no doubt unintentionally) misleading in some of its statements, and his explanation of the achromatisation of the Periscopic lens, referred to in 1865, is incorrect. As the subject is engaging considerable attention, it may interest your readers if I offer a few remarks on it.

A single lens cannot of itself be achromatic; but there are conditions in which the combination of two or more single lenses of the same quality of glass can be made achromatic. The first attempt to improve the single eye-piece in refracting telescopes was made by Huygens. Instead of a single eye-glass, he employed two plano-convex lenses, with convexities towards the object-glass, whose focal lengths were in the proportion of 3 to 1, separated by an interval of twice the focal length of the shorter

—the lens of the greater focal length being nearer to the object-glass, and the image being formed *between the two eye-glasses*. It is interesting to note that his sole intention was to diminish spherical aberration of the extreme pencils by dividing the refraction into two parts. Sir George Airy, in his admirable treatise on refracting eye-pieces of telescopes, points out that Huygens had no idea of making the eye-piece achromatic, and that he was ignorant of the advantages which the system he adopted brought about; and the discovery of its achromaticity was not made until the construction had been many years employed. In his attempt to diminish spherical aberration, he hit upon a construction that completely removes chromatic aberration also. This was appreciated when the unequal refrangibility of light was established, and the mode of obviating the inconvenience arising therefrom established.

Dollond, in a letter to Short, who was Secretary to the Royal Society, stated that he had made achromatic eye-pieces consisting of four and five lenses. His object at first was merely to diminish the spherical aberration, on the same principle on which it had been attempted by Huygens. From his letter it appears that he had no theory which enabled him generally to make his eye-pieces achromatic, and in the same letter it is interesting to note that Dollond speaks of an achromatic object-glass as a thing totally to be despaired of. To Sir George Airy belongs the honour of having first given a full and theoretical explanation of the means whereby single lenses of the same material can form an achromatic combination, and his formulæ are very elegant.

Of Steinheil I have a high opinion, as an original worker and first-ratemathematician, but I am sure that Steinheil himself would never have claimed that his Periscopic lens was achromatic or actinic. The rough explanation given by Mr. Traill Taylor, in 1865, contains an element of the general character that is involved in the achromatisation of one single lens by another, but the form itself is such that achromatisation is absolutely impossible. The general principle is this: The dispersion attendant on the first refraction will separate the ray into its different coloured primitive rays; the violet ray will be more refracted than the red; and on passing to the second lens the red ray should be more refracted than the violet; and if accurately calculated forms and positions are assigned to these two lenses the resulting emergence will be that the red and violet emerge parallel to one another, and no colour fringes will be observed. In the Periscopic lens, for the eccentric pencils there may be, or there is, a slight *diminution* in the separation of the originally unachromatised beam which leaves the first lens by the position of the second, but it is only a diminution; it does not emerge achromatic, and it is quite impossible to make the system as a whole achromatic. Steinheil's Periscopic lens was found to be only approximately actinic, and had to be used with a very small stop, namely,  $f/10$ , the cone of rays then being so limited at crossing that the permissible displacement between the chemical and visual foci was hardly noticeable, and the results given were passably correct. Whatever improvements might be made in optical glass, no lens of one species of glass of the Periscopic form could possibly be achromatic or actinic. Mr. Traill Taylor refers to the principle of obtaining achromatism in the reversing glass situate at the lower end of a terrestrial telescope. It is true *there* that the *principle* is shown. The field lens is of a shorter focus than the separation between the field lens (*i.e.*, the fourth glass) and the third glass, hence the ray crosses the axis before it meets the second lens, and, therefore, will aid and make possible a system of achromatism for these two lenses. Here the rays leave the second lens (the third glass) parallel, and hence the condition of achromatism is maintained. In the original four-glass eye-piece this condition was not absolute, and rays from the second lens not being perfectly parallel the condition of achromatism was not brought about until they emerged from the eye-lens. The separation between the second (third glass) and third (second glass) lenses is the final means of making the four glass eye-piece achromatic. If that separation be too large, or too small, there will be colour fringes corresponding to either extreme of the spectrum.

In conclusion, Mr. Traill Taylor will remember that the defects of Steinheil's Periscopic lens gave an impetus to my late father in bringing about the wide-angle rectilinear lens, for which he obtained a patent. This lens covered equally well as compared to the Periscopic, but had the advantages of being not only actinic, but working with perfect definition at an aperture of  $f/15$ .—Yours, etc.,

THOMAS R. DALLMEYER.



## HYDROQUINONE WITH SODIUM HYDRATE.

SIR,—I should like to hear opinions on this subject in the columns of your paper, as I have been as unfortunate with sodium hydrate as I have been successful with carbonate potash. If chemicals are procured from an ordinary chemist, the worker must be careful not to take *bi-carbonate*, as this is useless. The formula, Thomas' original, was an excellent one. They have now discarded it in favour of sodium hydrate. Can you account for the universal preference of makers for this salt? Some rather sensational accounts of its performances on under-exposed plates were published some time ago. My own experience has been that in cases of under-exposure the old formula is quite equal to it, while it has a tendency to produce thinness and patches. Thomas' present formula seems to me far too strong. Of course, it may be my fault; but I certainly greatly prefer and always recommend the carbonate potash and soda.—Yours, etc.,

July 18th, 1890.

R. A. G. O.

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## DEVELOPMENT.

SIR,—As your correspondent, "A. Buyer's," letter is so very misleading, I should be wanting in my duty as an amateur if I did not point out why eikonogen is more suitable for an all-round developer than hydroquinone or even pyro.

Your correspondent says he cannot get the "pluck or brilliancy" with any other developer that he can with pyro. Also that he places eikonogen "low down in the list."

Again, he says that "hydroquinone is well suited for Edwards' Isochromatic plates."

Now, if "A Buyer" had not told us that he had lately "amused himself" by carrying out a series of experiments with plates made by Wratten, Paget, Mawson, Ilford Co., Thomas, and Abney, I should certainly have thought he was a new hand at development.

I also have experimented freely with the different plates enumerated, with the exception of Abney's, and my opinion is that eikonogen is far and away at the head of the list as the best all-round developer.

Taking first my favourite plate—Edwards' Isochromatic. On this plate I can get really beautiful gradations with eikonogen, pyro comes next, and hydroquinone is most unsuitable on account of this plate acquiring density sooner than any other brand in the market. For instance, when developing plates exposed in the hand-camera—with hydroquinone and caustic soda, I have been compelled to develop with only *one* grain of hydroquinone per ounce of developer, otherwise the highest lights would get too dense before detail could be got in the half-tones and shadows. With this plate pyro and washing soda is almost but not quite so bad, thus it will readily be seen why Mr. Edwards so strongly recommends "redevelopment."

The advantage of eikonogen is that whilst proper gradation is got throughout the lower tones of the picture, it never blocks out detail in the highest lights, such as is in a white cottage in a landscape—that hydroquinone does—which quality must be considered invaluable.

The formulae I strongly recommend is one given by me to many of the most prominent members of the Liverpool Amateur Photographic Association, all of whom speak now of eikonogen as "the only developer." It is as follows:—

(A.)				
Sulphite soda	..	..	..	2 ozs.
Eikonogen	..	..	..	240 grs.
Water, to	..	..	..	30 ozs.

This solution contains 1 grain of eikonogen in each drachm.

(B.)				
Washing soda	..	..	..	1½ oz.
Water, to	..	..	..	10 ozs.

For instantaneous exposures with any of the plates mentioned—*except Isochromatic*—take of

(A)	..	..	..	1½ oz.
(B)	..	..	..	¾ "
For Iso plates take of (A)	..	..	..	9 drms.
Water	..	..	..	4 "
Water	..	..	..	3 "

For time exposures less of (B) may be used, making up the

difference with water, although this developer will be found to be almost equally good for any reasonable exposure.

This developer may be used over and over again, so that it need not be thrown away, but as it slows considerably I usually throw it away after development.

If it is thought by some that density is too long in coming, half a drachm of a 10 per cent. solution of carbonate of potash will not only hasten development, but possibly give more detail, when the plate is much under-exposed; but I prefer to cover up the dish and wait patiently for density, which, in my case, with Isochromatic plates, usually takes from eight to ten minutes.

If (A) and (B) solutions are quite clear, the dish requires scarcely any rocking.

I enclose you a rough whole-plate print from negative (Isochromatic plate) instantaneously exposed with Thornton-Pickard shutter, taken with a *half-plate*, Steinheil lens, working at  $f/16$ , and developed as above.—I remain, Sir, yours truly,

Liscard, Cheshire, July 14th, 1890.

H. WILKINSON.

[NOTE.—The print is exceedingly clear and bright, foreground and distance well rendered; the lens has fully covered the plate, and has given excellent gradation.—Ed. AM : PHOT.]

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## PACKING DRY PLATES.

SIR,—I have read with interest the recent correspondence in your columns under this heading, and should not have been moved to take part in it but for the attitude presented by Dr. Lindsay Johnson, who expresses his intention to sacrifice the teachings of his personal experience because of the failures instanced by some of your correspondents.

Dr. Lindsay Johnson's method of packing his plates, film to film, with nothing between them, is very like my own. It seems strange he should resolve to discontinue it and interpose tissue paper, because Messrs. Mann and Gottlieb, etc., advise him to, especially as he states that he has had no reason to regret the method he has hitherto employed.

We are indebted to your correspondence columns for many useful hints and much valuable information, but it is only by a comparison of results that we can afford to be guided, for some failures and disasters are often attributable to the same causes which induce certain proverbial workmen to quarrel with their tools.

I would commend to Dr. Johnson's attention Col. Verney's letter on "Chemically Harmless Paper (?)," and strongly endorse the caution it conveys.

At one time I interposed "chemically harmless" paper between my plates, and the consequences were similar to those detailed by Col. Verney. Mine, however, were not merely ruined by the mark of the grain of the paper, but by stains and fog round the edges, and scratches.

For the last three years I have packed my plates (after well dusting) film to back, with nothing interposed, and not "wedged firmly," or "tied up very tightly," but comparatively loosely, allowing as little lateral play as possible, and no other weight than that of the superincumbent plates themselves. Since I have done this, I have had no troubles whatever, though many of my plates have remained unpacked for several months, been carried long distances by trains, and sometimes by springless carts, and subjected to what I consider as trying an ordeal as any, viz., the "flop" of a dingy in a short sea.

I am told that chemically harmless paper is a scientific impossibility. Will someone enlighten us? A dealer's opinion would, of course, not be decisive.—Yours truly,

A. E. VENN.

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## SINGLE LENSES.

SIR,—I have read Mr. Walker's letter in your last issue. Apart from the Kodak lenses, which, by the bye, Mr. Walker has now learned the history of, kindly allow me, for the benefit of my fellow-amateurs to give another extract from the Almanac of the *British Journal* to prove the correctness of Mr. Walker's statement that "good negatives may be made (under certain conditions) with very simple and inexpensive lenses."

The extract is from an article by J. Traill Taylor in the Almanac in 1885, page 42, and is headed "Certain Properties of Simple Lenses:—"

"It is probable that, in a far more pronounced degree than has hitherto been the case, single lenses will assert for themselves



a high position in the optics of photography. By 'single' lenses I mean just what the term implies, namely, one piece of glass ground in the form of a lens, pure and simple, as contradistinguished from a single achromatic lens, which is formed of two elements.

"One leading feature in single lenses—and it is an all-important one in photography—consists in their inability when employed, any one by itself, of forming an image which in the photograph will be as sharply defined as was the image visible on the ground glass. This arises from the non-coincidence of the visual and the chemical foci—a subject upon which it is not necessary here to dwell. But when a single lens is employed with discrimination, it may be made to produce pictures that shall not be deficient as regards sharpness.

"By way of making this understood, more especially by those who have become acquainted with photography since those days, now long departed, when the functions of single, uncorrected lenses formed a theme of discussion among the fraternity, I will narrate an instance of what took place immediately previous to the writing of this article. Having obtained from a dealer in meniscus or periscopic lenses—ground for the purpose of aiding vision when mounted in spectacle frames—one having a focus of fifteen inches, with a diameter of one and a half inch, it was mounted in a short tube with a stop of a quarter-inch aperture placed at a distance in front nearly equalling the diameter of the lens. Having obtained a sharp focus on the ground glass, the lens was then pushed nearer to the focussing screen by the extent of half an inch, which had the effect of throwing the image out of visual focus. But upon exposing a plate, one of 8 by 5 dimensions being employed, the image was found to be exceedingly sharp all over, and it was apparent that a larger plate could have been well covered."

Again he writes, "To one property more in a single lens I will allude before closing. I have said that when such a lens is made use of alone, it has to be pushed nearer to the focussing screen in order to ensure sharpness in the chemical image. Here is a method by which this may be mitigated. Let the focussing be performed with a stop of large aperture, and then insert a small stop for working with. In the case of some single lenses the substitution of the smaller for the larger stop will effect such a lengthening of the blue rays as will project them to the plane upon which were received the visual rays when transmitted through the agency of the larger aperture."—I am, Mr. Editor, yours, etc.,

July 19th, 1890.

NEWCASTLE.

**PRESERVATIVE PAPER FOR NEGATIVES.**—Messrs. George Wheeler and Co., of 40, King Street, Manchester, have sent us a packet of their "Chemically Pure Paper." They assure us that the paper is pure, and that when laid between negatives they will do no harm whatever to the film. The paper is extremely soft, and also appears to be free from any unevenness or foreign matter that would be likely to abrade or scratch the surface of the film.

**THE "PRACTICAL PHOTOGRAPHER."**—Workers in photography cannot accuse publishers of photographic literature of any want of enterprise. Messrs. Percy Lund and Co., of Bradford, are issuing a "Special Summer Number," which will be illustrated, contain no less than forty pages, with articles by well-known writers, for which "twopence" is asked. We note three striking lines, viz., "Is the Convention a Success? No." "In Natural Colours, Accomplished at Last." "Six Full-page Supplements." We have said enough to satisfy our readers that at twopence the "Practical Photographer" is indeed a cheap investment.

**CORRECTION.**—Mr. Cecil V. Shadbolt writes, "I am pleased to see that my picture has been awarded second prize in your recent 'Monthly Competition' (Landscape), and thank you for your remarks concerning same. I write, however, to draw your attention to an error which I fear has arisen through my own fault, though quite inadvertently, and which I trust you will not consider will make any difference. The plate on which my photograph was taken was a Nelson plate, and *not* one of Wratten's, though I almost invariably adopt the latter. I beg to tender you my apology for the mistake."

[We have again referred, and find that the plate is described as Wratten, London. It is, of course, only just to the maker that the correct name of the plate should be given.—ED.]

## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(The Yorkshire College, Victoria University).

(Continued from page 6.)

**OXIDES**, or compounds of oxygen with another element, are a very numerous and important class of substances. They can be obtained by direct combination of oxygen with the particular element, as in the previous experiments, and by other methods which will be described later. All are solids or gases at the ordinary temperature, but their appearance and properties vary considerably according to the nature of the element with which the oxygen is combined, and the proportions in which they have united.

### NITROGEN.

Symbol, N. Combining weight, 14.

**EXPERIMENT 33.**—Attach a small porcelain crucible or crucible-lid to a piece of cork or wood, so that it will float on water without overturning. Place it on the surface of some clean water in a trough or dish, and into the crucible or lid put a piece of ordinary phosphorus the size of a large pea.\* Ignite the phosphorus by touching it with a hot wire, and immediately place over it a bell-jar or a large wide-mouthed bottle held upside down. The bottom of the bell-jar or the mouth of the bottle must be below the surface of the water. Allow it to remain until the phosphorus ceases to burn. Observe that the bottle is filled with white fumes, which in time gradually disappear. During combustion and whilst the bottle is cooling, the water will rise in the bottle.

Add to the water in the trough some blue litmus solution; observe that it is turned red.

When the white fumes have all disappeared, raise or lower the bottle in the trough until the level of the water inside the bottle is coincident with the level outside. Now mark on the bottle the height at which the water stands.

Place a tray against the mouth of the bottle under water, lift it out of the water and turn the bottle up, keeping the tray against the mouth. Observe that the gas is colourless and has no smell. Now introduce a lighted taper into the bottle; observe that the taper is at once extinguished, and the gas in the bottle does not take fire.

Measure the quantity of water required to completely fill the bottle; measure also the quantity required to fill it to the height to which the water rose in it. You will find that the gas left in the bottle after the phosphorus had ceased to burn occupied four-fifths of the total capacity of the bottle.

Examine the vessel which contained the phosphorus; if a sufficient quantity was taken at the beginning, you will find that some of the phosphorus remains unburnt.

What do we learn from these results? The fact that the water rises in the bottle shows that when the phosphorus burns in the air which the bottle contained, there is a contraction, or, in other words, something is taken out of the air. The fact that the phosphorus ceases to burn before it is all consumed shows that the substance which is removed from the air is the cause of the combustion of the phosphorus, the gas which is left being unable to keep it burning. Our measurements show that the gas which is left occupies only four-fifths the volume of the original air, and its behaviour

\* N.B.—Phosphorus is extremely inflammable, and must be handled with the greatest care. It must be kept in a bottle filled with water, and must be cut and handled under water. A piece required for an experiment is cut off under water, and dried by placing it on a piece of filter paper and pressing it, *not rubbing*, with the paper. It is then transferred by means of crucible tongs to a deflagrating spoon or other receptacle. It must not be touched with the fingers when dry.



towards a lighted taper shows that it is very different from oxygen, ordinary air, or hydrogen.

The gas which is left after the phosphorus has ceased to burn and the fumes have all been absorbed by the water, is one of the elements, *nitrogen*. It exists in the free or uncombined state in the air, of which, as we have found, it constitutes four-fifths by volume. It is colourless, odourless, non-inflammable, and does not support combustion. It is almost entirely insoluble in water, combines with very few substances indeed, and is, in fact, characterised, in the free state, by a remarkable chemical inactivity.

What has actually taken place in our experiment is this: The air is a mixture of oxygen and nitrogen (we shall have still further proofs of this later), and when the phosphorus burns in the air it combines with the oxygen, forming phosphorus pentoxide,  $P_2O_5$ , a white solid substance which appears as dense smoke. The phosphorus pentoxide is rapidly absorbed by the water and forms phosphoric acid, which turns the blue litmus red, and the nitrogen is left behind in the bottle.

EXPERIMENT 34.—Fit a large bottle with a cork carrying a funnel tube which reaches to the bottom, and a short bent tube which ends just below the cork (A, fig. 15.) Take

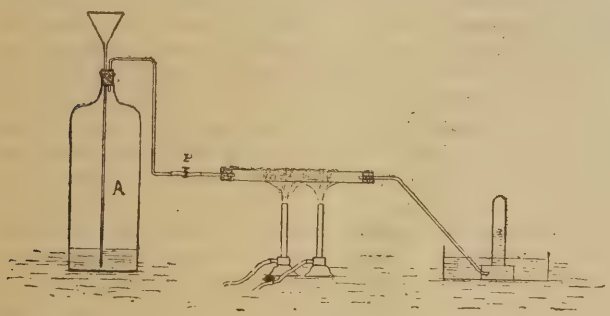


Fig. 15.

a piece of hard or "combustion" tubing about 25 c.m. (10 inches) long and 12 m.m. ( $\frac{1}{2}$  inch) internal diameter, fill the middle of it with a layer of copper turnings about 5 inches in length, and weigh the tube and the contents. Now fit one end with a cork carrying a short piece of glass tube, and the other end with a cork carrying a delivery tube which dips below a tube or bottle in the pneumatic trough. Take care not to spill any of the copper out of the tube. Support the tube by means of retort-stand rings or a clamp, and connect with the large bottle by means of a piece of narrow india-rubber tube on which is a small screw-pinch-cock, P. By means of two burners, heat the copper gradually to redness, and then by pouring water into the funnel and carefully regulating the pinch-cock, pass a *very slow* current of air through the tube. Allow the first few bubbles of gas to escape, and then collect the issuing gas in the usual way. When the collecting-tube is full, remove it and ascertain whether the gas has any smell and how it behaves towards a lighted taper. Allow the tube to cool gradually, the current of air being continued. Observe that the copper has lost its original colour and lustre, and is now black. Remove the corks and tubes from the ends, and weigh the tube and its contents; observe that there is a considerable increase in weight.

The black product is copper oxide, formed by the union of the oxygen of the air with the heated copper; the gas which passes on and can be collected is nitrogen. Here we have another method by means of which nitrogen can be prepared. We can, in fact, obtain it from the air in several ways, all that is necessary being to convert the oxygen into a solid compound, or into some compound which is easily separated from the nitrogen.

Nitrogen can also be obtained from some of its compounds, e.g., ammonia. It is a constituent of a large group of compounds of animal origin, which are said to be *nitrogenous*, in order to distinguish them from organic compounds which contain no nitrogen. The name *nitrogen* is given to the gas because it is one of the constituents of *nitre* or saltpetre.

#### HYDROGEN.

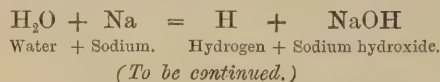
*Symbol, H. Combining Weight, 1.*

This element is rarely found in the free state in nature; but in combination it is very abundant. We have seen that it is a constituent of water, in which it occurs combined with oxygen (Experiment 26), and it is also found in almost all animal and vegetable structures.

Hydrogen can be obtained in the free state by the action of an electric current on water (Experiment 26), but it is usually prepared by the action of certain metals on water, either at the ordinary or a high temperature, or by the action of acids on metals.

EXPERIMENT 35.—Drop on the surface of some clean water in a dish a small piece of metallic sodium. It melts and forms a globule which runs about over the surface of the water with a hissing noise. Bring a light near the globule, and the gas which is being given off will take fire and burn with a yellow flame, the colour being due to the presence of some vapour of the sodium. Now add to the water some reddened litmus (Experiment 31d); its colour will be changed to blue.

The sodium decomposes the water even at the ordinary temperature, liberates half the hydrogen, and combines with the remainder of the hydrogen and the oxygen to form sodium hydroxide or caustic soda.



## The Stereoscope.—VI.

By VALENTINE BLANCHARD.

We have already said that the half-lenses employed by Brewster are not necessary in order to produce stereoscopic effect in photographs or in geometrical drawings, prepared for the purpose as suggested by Wheatstone; and we now proceed to put the statement to the proof.

The following diagram (fig. 3) represents two ten-sided

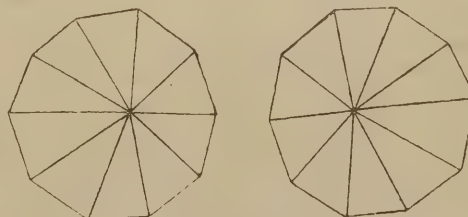


Fig. 3.

figures with lines converging to points which are not in the centre of the figures. It will be seen that the point where the lines meet, in the right-hand, or rather right-eye figure is considerably to the left of the true centre; and in like manner the point in the left-eye figure is to the right. Now we hope to make the reader see this drawing in stereoscopic relief after a very little practice, but before telling him what to do in order to get the true effect, we ask him to remember what we have already said about each eye seeing most of the side of a subject nearest to it. This being done, a little reflection will show that he ought to see a solid ten-sided pyramid, for were he to look down on one



of the solid geometrical subjects of this shape furnished to drawing classes, and were to make a drawing of what each eye saw, these two drawings would be the result; for the right eye would see most of the sides on the right of the apex, and the left eye in turn would see most of the left sides, and hence the difference in the two drawings. Now let us try to see the proper stereoscopic effect. As the eyes naturally converge, particularly in looking at a near object, we must adopt some expedient to keep them apart. Let the reader therefore look at some object about two yards distant, and, still keeping the eyes steadfast, interpose the diagram. If he has been successful, he will after a few seconds see a centre image stand up from the paper as a ten-sided pyramid, and be just conscious of two phantom images in addition, one on each side of the solid one. If, after two or three attempts, there is found difficulty in getting the effect above described, a piece of cardboard about six inches long placed exactly midway between the two pictures will help him considerably in compelling each eye to see its own picture. We ask the reader to persevere until he succeeds, for once mastered he will never need a stereoscope when examining stereoscopic pictures.

We will now assume that he has succeeded, and proceed to transpose the diagrams (fig. 4), of course keeping them

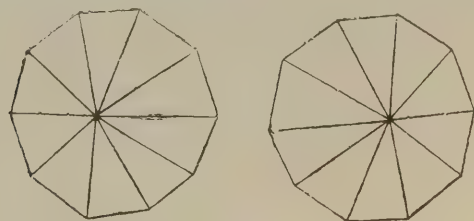


FIG. 4.

exactly the same distance apart. A most surprising change in the effect will be produced. The ten-sided pyramid will appear turned, so to speak, inside out. In fact, the effect will be exactly as if we were looking down the hollow inside of a cardboard or tin model of the object. The point where all the lines meet, which in the first diagram formed the apex of the apparently solid object, now becomes the vanishing point of our ten-sided vista. As this phenomenon illustrates an important principle known as *pseudoscopic*, or false relief, we claim the reader's patience while we thoroughly investigate the cause of this complete change in the kind of relief obtained by the transposition of the figures.

We have already called attention to the fact that in the first arrangement of the diagrams each eye saw most of the lines on its own side. By the new arrangement, however, a reverse effect takes place. The right eye sees more of the left side of the figure and the left eye more of the right side. Now, a very simple experiment will show that this would actually take place if the reader were looking down the inside of a hollow cone. If he twist up a piece of stiff writing paper so as to form a funnel, or extingisher, and look down it with the right and left eye alternately, he will see exactly the effect of the diagram. In fact, if he were to take a little trouble and fold the paper so as to make the ten sides before fitting the paper into the funnel-shape, and were to make a drawing of what each eye saw, he would have the exact counterpart of the diagrams now before him.

The next diagram (fig. 5) will perhaps still better illustrate the important principles involved in these experiments, and though they may perhaps at first need a little more practice to see them in true stereoscopic relief, for the radiating lines in the first diagrams help the reader very much,

and for that reason they were placed first, still, as the paper model to test the truth of the drawings can be so easily made with a sheet of writing paper and some strips of postage-stamp paper, and as the plain pyramid will be useful in pointing out a serious blunder which only too frequently happened in mounting stereoscopic pictures, we make no further apology for the second series of diagrams.

On looking at the diagram it will be seen to bear a close resemblance to two envelopes side by side, but on looking at

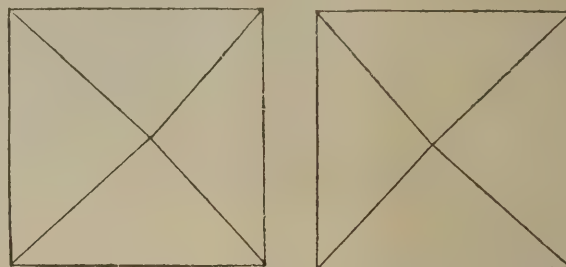


FIG. 5.

it steadily, as directed above for the first illustration, it will assume the appearance of a solid pyramid standing out from the paper; but after transposing it, as shown in the second pair of diagrams (fig. 6), the effect of looking down the hollow inside is produced, and, of course, both experiments produce natural effects. Let us apply the last diagram to the representation of a natural scene to which, by the exercise of a little imagination, it may be made to bear some faint resemblance,—viz., a long street. If the reader were to place himself in the middle of Harley Street, which has the reputation of being one of the most uninteresting streets in London, for all the houses are of the same height, and the street is perfectly straight, he would see an effect not unlike the inside of the pyramid, as shown in the last illustration. The two sides of the street would end in a point in the instance, and would form two triangles in

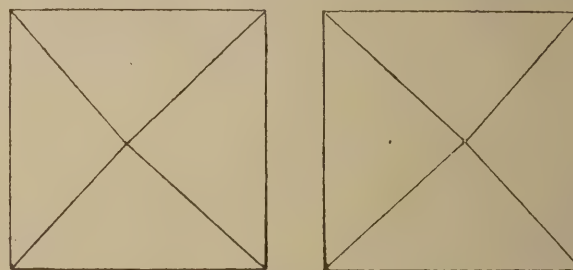


FIG. 6.

fact, and the sky and ground would furnish two more, and all the points would meet in the centre, which would be the vanishing point. Now, if a stereoscopic picture be taken of this scene, but, by accident or otherwise, the prints be wrongly mounted—if, in fact, the right-eye picture be put on the left side, and the left eye picture on the right—we shall get a *pseudoscopic* effect. In other words, our street will become a pyramid, for the most distant point will come up to the eye, and the sides will recede. In fact, the picture will be turned inside out. Now, in old days, when stereoscopic pictures were produced by thousands, this was a defect constantly occurring through the haste and carelessness of the mounters.

When we get to the practical part of our subject we shall show a simple method by which this accident will be rendered almost impossible.

(To be continued.)



## The Sensitiveness of Photographic Plates.\*

By W. A. WATTS.

At a recent meeting of the Society of Chemical Industry, a paper was read by Messrs. Hurter and Driffield on a subject of great importance to photographers, viz., a new method of determining the sensitiveness of photographic plates, but as the paper has not been printed *in extenso* in any of the photographic journals, and as besides it bristles with mathematical formulæ, and the journal in which it appeared is not generally accessible, we think our readers will be glad to have an abstract of the paper in a more readable form. We shall endeavour to make the conclusions of the authors more intelligible to the photographic amateur than we fear they would find the original paper, and if, for the sake of completeness, we are unable wholly to divest even the abstract of mathematical formulæ, the general reader can easily omit the symbols, as we will, as far as possible, present the points most important to the amateur in popular language. It may appear remarkable that a paper on a purely photographic subject should not have been presented to a photographic society, and we cannot help thinking that had the authors taken this course, they would have done much more to popularise their investigations, as we fear that only a small proportion of their audience would take more than a theoretical interest in photography, and it is possible that even a considerable percentage of that number might be more or less repelled by the mathematical appearance of the paper, as if there is one thing more than another repellent to the ordinary amateur, it is a mathematical formula. The authors state that to produce "a perfect negative demands in the first place a perfect plate," and therefore as the production of plates is a chemical industry, they vindicate their choice of audience. We hope, however, to introduce them to a much wider audience, and do not despair even of reaching the plate makers, who, if they will adopt a rational mode of ascertaining and indicating the sensitiveness of their plates, will benefit the photographic world generally. The authors begin with a photographic axiom—"The production of a perfect picture by means of photography is an art; the production of a technically perfect negative is a science," a valuable distinction which we wish were universally borne in mind. This leads to the enquiry, "What is a perfect negative?" to which our authors offer the definition, "When the amount of light transmitted through its various gradations is in inverse ratio to that which the corresponding parts of the original subject sent out." Perhaps a more practically useful definition might have been—a perfect negative is one which is capable of producing a perfect print; in which case the test of perfection in a print should be that it represents to the eye all the gradations of light and shade which the eye is capable of seeing in the subject. However, the authors go on to explain that in their view the negative is mathematically the true inverse of the original when the opacities of its gradation are proportional to the light reflected by those parts of the original which they represent. Now, suppose the opacities are produced by series of layers of dark particles, the first layer will stop a certain fraction of the light, the second layer the same fraction of the remainder, and so on. Thus if the first layer stopped  $\frac{1}{2}$  of the light  $\frac{1}{2}$  would pass through, the next layer would stop  $\frac{1}{2}$  of that  $\frac{1}{2}$ , allowing  $\frac{1}{4}$  to be transmitted, the third layer would transmit  $\frac{1}{8}$  and

so on. If the first layer transmits  $\frac{1}{2}$  only, the fractions after each successive layer would be  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ , etc. The mathematical expression of this is that if each successive layer transmits  $\frac{1}{m}$  of the light, after  $n$  layers the amount

transmitted will be  $\left(\frac{1}{m}\right)^n$ . Now what is true of a number of

layers is equally true of thicknesses made up of a large number of minute particles or molecules, hence the mathematician will see that if  $A$  be the number of molecules of dark particles, and

$\frac{1}{C}$  the fraction representing the amount of light trans-

mitted by each, and if we represent the original intensity of light by  $I$ , and the resultant intensity by  $I_x$ , then the

ratio may be expressed thus  $\frac{I_x}{I} = \left(\frac{1}{C}\right)^A$ . Now, as this

ratio may be best expressed logarithmically, it will be con-

venient for  $\frac{1}{C}$  to substitute  $e^{-k}$ , and then  $\frac{I_x}{I} = e^{-kA}$ , in

which case  $k$  is coefficient of absorption, the ratio  $\frac{I_x}{I}$

measures the transparency, and  $e^{kA}$  is the measure of the opacity of the substance.  $T$  is used to indicate transparency, and  $O$  to denote opacity, and the relation between them is that  $T \times O = 1$ . By density is meant the number of particles spread over unit area multiplied by the coefficient of absorption; it is denoted by  $D$ , and  $D = kA$ . The following relations therefore hold good between opacity, transparency, and density:—

$$T = e^{-D}$$

$$O = e^D$$

$$D = \log_e O = -\log_e T.$$

The authors remark that whilst these relations hold good for some substances with regard to white light, with others they only hold as regards monochromatic light, and with yet others not at all. They, however, have satisfied themselves that they do hold good for silver deposited as a black substance, and without metallic lustre, in negatives.

They draw the conclusion that "in a theoretically perfect negative the amounts of silver deposited in the various parts are proportional to the logarithms of the intensities of light proceeding from the corresponding parts of the object," because the opacities are proportional to the light intensity, and the density is the logarithm of the opacity.

This led to the device of an instrument for measuring the density of the silver deposited in negatives. The instrument is simply a Bunsen photometer, like that used for measuring the illuminating power of gas, and consists of a cubical chamber with a grease spot on a piece of paper, illuminated on both sides by powerful petroleum lamps, one of which is shaded by the portion of negative whose density is to be measured. The cubical box slides on a scale, further from one light and nearer the other, until the disc is equally illuminated on both sides, when an index pointing to the divisions of the scale, which is logarithmically divided, records the density.

In addition to the graduated scale on which the cubical chamber slides, there is a moveable scale, also logarithmically graduated, which obscures more or less the light on the opposite side to the negative, and so enables small densities to be directly measured, whilst, when necessary, sufficiently obscuring the light to permit high densities to come within the range of the instrument. Thus, whilst

\* "A Photo-chemical Investigation and a New Method of Determining the Sensitiveness of Photographic Plates," by Ferdinand Hurter, Ph.D., and V. C. Driffield.



density = 1 permits  $\frac{1}{10}$  of the light to pass, density 2 permits only  $\frac{1}{100}$ , 3 permits  $\frac{1}{1000}$ , etc.

This instrument was tested in its indications by being applied to the analysis of mixtures of Indian ink and water, indigo solution and water, with very good results. Thus for Indian ink and water the following set of readings is given:—

Indian Ink to 100 c.c. Water.	Density by Calculation.	Density Found.	C.C. Indian Ink Found.
5 c.c.	.240	.240	5.00
10 "	.480	.500	10.42
15 "	.720	.750	15.62
20 "	.960	.950	19.80
25 "	1.200	1.245	25.90
30 "	1.440	1.440	30.0
35 "	1.680	1.665	34.7
40 "	1.920	1.885	39.3

Showing a greatest error not exceeding 4 per cent., which might have been reduced had an average of readings been taken.

A series of experiments were made to ascertain the mode of action of developers and the influence of varying conditions, consisting in subjecting "pieces of one and the same plate to the varying conditions the influence of which on the density or the gradation was the subject of investigation;" at the same time always developing a "fog strip," or a piece of plate which had not been exposed to the light at all, thus ascertaining how much of the resulting density is due to the action of light, and how much to incidental fog, or the density due to glass and gelatine.

A large series of examples are given showing the effect of variations of time and of the amounts of pyrogallol, ammonia, and ammonium bromide. It may suffice to quote one in full to show the method of working, and then to summarise the conclusions arrived at. Experiment 3.—Plate, "Wratten Ordinary." Exposure = 20 C. M. S.\* Developer, 100 c.c. contain,

0.162 grams  $\text{NH}_3$   
0.342 " Pyro  
0.228 "  $\text{NH}_4\text{Br}$

Time of development (minutes)	2.5	5.0	7.5	10	15	20
Density, exposed plate	.670	.965	1.245	1.420	1.755	1.945
Density, unexposed plate	.200	.345	.415	.505	.575	.710
Density due to light	.470	.620	.830	.915	1.180	1.235
Percentage developed	38.0	50.2	67.2	74.1	95.5	100

The results of several of the experiments are graphically recorded by means of diagrams, in illustration of which we reproduce the diagram relating to this experiment, (fig. 1.)

The conclusion arrived at is that the total density grows with the time of development, but that the density due to light reaches a limit in about fifteen minutes. The continued growth of the total density is due to the action of the developer upon the bromide of silver which had not been affected by the light. As regards variation in proportion of pyrogallol, it seems to be proved that an excess of pyrogallol beyond a certain limit tends to retard development and the production of density. The authors state that this limit appears to be the equivalent of pyrogallol necessary to convert the ammonia into tribasic pyrogallate  $\text{C}_6\text{H}_3(\text{ONH}_4)_3$ .

\* The meaning of this exposure standard is fully explained later on.

The addition of ammonia, up to a certain extent, increases the density in a given time, but the amount of ammonia which can be added without giving rise to fog, and without simultaneous addition of bromide, is very limited. Finally, as regards variation of ammonium bromide, it arrests development entirely when the amount of bromide has reached ten times that of ammonia present. It is stated that a rational developer would consist of a decinormal solution of ammonia containing so much pyrogallol and ammonium bromide as would correspond with the formula  $\text{C}_6\text{H}_3(\text{NH}_4\text{O})_3 + \text{NH}_4\text{Br}$ . This would be represented in English weights and measures by about 2 grains pyro,  $1\frac{5}{8}$  grains ammonium bromide, and  $2\frac{1}{2}$  minims strong ammonia to the ounce, not very far from the "*quod ubique, quod semper, quod ab omnibus*" of modern photographic orthodoxy.

It was found, however, that pyrogallol developers tend to have a great action upon silver bromide, even though unexposed, rendering them unsuitable for scientific investigations

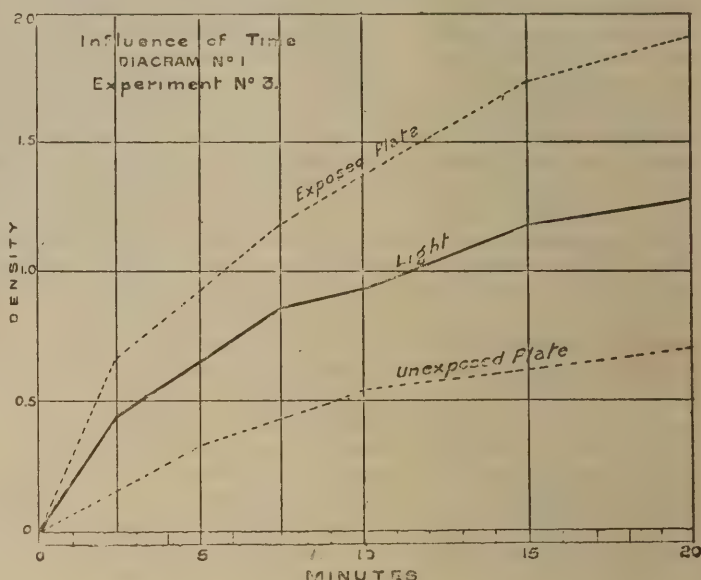


FIG. 1.

(as shown in diagram 1), hence the authors found it desirable to adopt ferrous oxalate, which in one hour gives no appreciable density upon an unexposed plate, for all those experiments which did not regard the varying composition of the developer as their *raison d'être*. They further reached the following conclusion: That the total density reached is dependent upon the time of development as well as upon the exposure of the plate, but that the gradation of negatives is independent of the time of development (this was tested by development with hydroquinone and eikonogen, as well as with pyrogallol and ferrous oxalate); that the gradation is not affected by alterations in the composition of the developer, contrary to the usual belief that gradations of an over-exposed negative can be altered by using greater amounts of bromide; and that it is "not even altered by intensification after development;" whilst reduction with potassium ferricyanide and sodium hyposulphite does alter the ratios of gradation.

The next investigation was made to ascertain the connection existing between exposure, sensitiveness, and density produced. For this purpose a standard unit of exposure was needed, and the one adopted was the intensity of a standard candle at one metre distance for one second; hence, exposures are stated in "candle-metre seconds" (C. M. S.).

The flame of the candle should reach a height of 45 mm.



measured from the top of the spermaceti to the top of the flame; it must be protected from draughts by being placed within a black box open at one side, and, for shorter exposures than 10 C.M.S., it is found best to place the standard candle two metres off, thus reducing the intensity to one quarter.

In order to test the consistency of results so obtained, it was found that on three separate days densities were given by equal exposures on three separate plates of the same batch: 0.750, 0.730, and 0.720 respectively; again, comparing one standard candle with another, four different standard candles gave upon one plate in ten seconds the densities 0.490, 0.490, 0.500, and 0.480.

(To be continued.)

## Reviews.

### "THE INTERNATIONAL ANNUAL."

THE third volume of this annual is before us. The editor in New York is Dr. A. H. Elliott, F.C.S., and in England Mr. W. Jerome Harrison, F.G.S. The book is published in America by Messrs. E. and H. T. Anthony and Co., and in this country by Messrs. Illiffe and Son, of London and Coventry.

As an annual it is always welcomed by English readers, and this year the very excellent illustrations lend considerably to its value. The frontispiece, a "Portrait Study," is a print upon albumenised paper, and is a good specimen of the art of the professional photographer in America. Most of the pictures are by phototypy, others by collotype and photophane. A very beautiful photogravure is "Pilgrims from Mecca," from a negative taken by that very talented photographer, Mr. Horace W. Gridley. Another beautiful picture is a "Profile Study," by Falk, which has been produced by F. F. Gutfkunst, of Philadelphia.

The letterpress is of the usual "Annual" standard, neither better nor worse. Many of the English contributors are well known; amongst them we note Captain Abney, W. Adcock, A. W. Beer, C. H. Bothamley, A. R. Dresser, E. Dunmore, A. R. F. Evershed, W. J. Harrison, J. Hubert, Dr. W. V. Knaggs, W. Lang, junior, C. J. Leaper, A. J. Leeson, C. H. Lewis, Dr. Maddox, G. Mansfield, Geo. Mason, Andrew Pringle, H. R. Proctor, F. M. Sutcliffe, J. Traill Taylor, G. W. Valen'ine, W. Harding Warner, G. M. Whipple, etc., etc.

Many an hour can be spent with pleasure and profit in the perusal of "The International Annual."

PHOTOGRAPHIC PRINTERS.—Messrs. Thomas Illingworth and Co., 38, Sherriif Road, West Hampstead, have kindly sent us their catalogue, from which we gather that they execute photographic printing of every kind, make enlargements, lantern slides, etc., and supply photographic material and apparatus. A special feature is made of developing exposed plates or films. Our readers should write for price list.

OURSELVES.—A correspondent, writing from Smyrna, says, "Allow me to take this opportunity of expressing my high appreciation of your inestimable paper. Since I first heard of it through a friend (not a photographer) I have looked forward to its arrival with greater pleasure each week. When I commenced photography I had only a 'Burton's Handbook,' and you may imagine how pleased I was to hear that there was a paper devoted entirely to the interests of amateurs. So great encouragement has your paper given me that my interest in the subject has increased unceasingly since I got the first number, though at one time I was so discouraged with failures that I thought of giving it up. I greatly admire the 'Prize Pictures' published, and also the 'Home Portraiture' number. From both I have got much help in the composing of pictures."

## Science Notes.

IN reviewing (in *Nature*) Dana's excellent new book on "The Volcanoes of Hawaii," Professor Judd remarks, "The book is well illustrated with maps and sketches, and some plates reproducing photographs will serve to give a just idea of the peculiar lava cascades and fountains of Hawaii—phenomena which have not unnaturally excited the imagination of untrained observers, and given rise to startling drawings and florid descriptions in popular works of travel." Yes, the probability is that in the future the demand will be more and more for the unbiased photograph, and the "imaginative pencil" will have to take a back seat.

Dr. A. B. Meyer has written a fine monograph on the "Masks used by the Natives of New Guinea," etc. The memoir (published by Stengel and Markert, at Dresden) contains sixty-one photographic reproductions of objects in the Dresden Museum. "On comparing these photographs with woodcuts of similar objects, the advantage of the former is at once apparent, as the texture of the various substances used in the manufacture of the masks is faithfully rendered, and the faultiness of the original design or pattern is not glossed over by an engraver. It is a great pity that the magnificent collections in the British Museum cannot be rendered available for home study by the publication of similar photographs" (*Nature*). Thus photography scores again.

Some photographs of the bright star Altair, taken by the brothers Henry at Paris, show a spectrum of considerable "fuzziness," none of the lines being sharp. These distinguished astronomers conclude that this is due to the star possessing a rapid rate of rotation and a great amount of agitation at the surface. Evidently this is a star which must be photographed "instantaneously."

Dr. Coleman Sellers, now Professor of Engineering at the Stevens Institute, Hoboken, and at the Franklin Institute, Pennsylvania, has been appointed a member of the Scientific International Commission to consider how best to utilise the 120,000 horse-power which it is proposed to draw from the Falls of Niagara. Many photographers will remember Coleman Sellers as the talented correspondent (twenty years ago) of our English journals on matters photographic in the United States. He has now risen to the very top of his profession as an engineer.

An accident which occurred at Messrs. Muspratt's chemical works at Flint a few days ago shows that even chlorate of potash, which workers with the lantern handle and store so carelessly, may do terrible damage. One of the workmen engaged in the manufacture of this substance thoughtlessly obtained a light by the not uncommon plan of striking a match upon his trousers. His clothes were full of the powder or dust of chlorate of potash, and this caused them to catch fire and to burn so intensely that although aid was quickly rendered, the burns proved fatal. Chlorate of potash contains more than one-third of its weight of oxygen; hence the vigour with which it supports combustion.

This reminds me that the only "occurrence"—I can scarcely call it an "accident"—which has happened to me in the course of twenty years' experience with the optical lantern was due to a very similar set of circumstances. A very large gas-bag was being filled, but it could not be got "tight," or drum-like. Judging there was a leak somewhere, my assistant passed a lighted taper over the surface of the bag. The leak was soon found, but the frayed rubber edges at that point took fire, and the burning was so vigorously supported by the included gas that it was not possible to extinguish it. The heat in turn expanded the contents of the bag, which suddenly exploded with a loud report, throwing several bystanders on their backs, and upsetting a stone column weighing nearly a ton. Fortunately, when we gathered ourselves together, "nobody seemed one penny the worse." But those who consider that *two* gases are necessary to produce an explosion may learn a lesson from this note.

A famous cricketer lately surprised the querist who wanted to learn whether he ever remembered so dismal a summer as that which we have lately been enduring, by replying vigorously in the affirmative. "But when?" was the repeated question. And the triumphant reply came, "*Last winter!*" And he was right. We had a mild winter, and now we are having a wintery summer.

Mr. Isaac Roberts, of Maghall, Liverpool, was presented with an address from the Mayor and leading inhabitants on the occa-



sion (July 3rd) of his leaving the murky skies of the great sea-port for the clearer atmosphere of Tunbridge Wells. His telescopes are being transported to his new observatory, and we may expect more, if not better, photographs of celestial phenomena from this ardent star-gazer.

Professor Meldola's lecture on the "Photographic Image," delivered at the Royal Institution on May 16th, was interesting as a summary of what has been done in connection with the mysterious "photo-salts" which are produced by the action of light upon certain salts of silver; but the Professor (like many men before him) has evidently found the problem "uncommonly tough," and he did not definitely pronounce for any one theory.

The Austrian experimenters, Mach and Salcher, have been doing excellent work (see *Sitzungsberichte d. kais. Akademie d. Wissenschaften in Wien*) in photographing projectiles in rapid motion. They used cannon and rifles of various sizes, and so arranged their apparatus that when the projectile was in the focus of the camera lens, it caused the discharge of a spark from a Leyden jar, by the light of which the photograph was obtained. The pictures are quite clear and sharp, and show well-defined waves of condensed air in front of the ball, while behind it there is no trace of a vacuum.

F. G. S.

## Our Contemporaries at Home and Abroad.

THE *Photographic Globe* (New York) says, "A new science brings with it new words, and if one language is too weak to supply them they must be taken from another language. Photographers who use a preliminary bath before developing a plate are adopting the word 'Vorbad,' from the German 'vor,' meaning 'before,' and 'bad,' meaning 'bath.' The photographic journals were all prompt in accepting the word, never for a moment considering that a noun like 'prelavation,' a Latin derivative, would answer just as well or better. In the sciences when a new word becomes necessary, it is customary to form that word from a root of one of the classic languages, because the meaning of such a root is fixed and exact, allowing no future change, whereas the words of a modern language are constantly changing in meaning, and therefore affording no certain foundation. The word 'prelavation,' which we suggest, means a preliminary bath, being derived from the Latin *prælavare*, to wash or bathe beforehand, or rather from *præ*, beforehand, and *lavatio*, a bath or washing." Articles: "Chromo-Artotypy," "Eleventh Annual Convention of the Photographers' Association of America," "Pictorial Focusing," etc.

The *Photographic Times* (New York) says, "Oh, the fond mothers who insist on dressing children in garments heavy with frills, instead of the soft, fine little dresses that fall in pleasing lines. Then, too, they insist sometimes on having a foot or shoulder, or more often a sash or shoulder knot, show, to confusion of art and the destruction of unities. Or they will dart out and twitch a little skirt or mantle that has fallen into natural curves of beauty, or a wandering curl, that falls in exquisitely careless grace, back into order and awkwardness again. That happened the other day when I was photographing a bride. She walked up to the chair, and as she turned to face me the silk train and thin veil fell in wonderful folds of graceful outline. I told her not to stir, but while I stepped back to get the effect her friend darted out and straightened the whole thing out like a flag in a head wind. The same lack of artistic sense that placed the furniture in a room at right angles still thinks the straight line the line of beauty, curves representing disorder." Articles: "The Washington Convention," "Photographer's Illness," "War Outlines in Washington," "Origins and Progresses of Photo-Engraving," "Figure Studies," "Originality in Photography," etc.

The *St. Louis and Canadian Photographer* (St. Louis), speaking of "The Choice of a Lens," says, "The question is frequently asked, is it necessary to pay the high price demanded by old-established makers in order to procure a reliable objective? To this I reply unhesitatingly by that if due judgment in selection be exercised it most certainly is not. It would perhaps be invidious to particularise, but there are now in existence many English firms whose productions are of the highest standard of excellence, but which are offered to the public at moderate prices. In regard to instruments of foreign manufacture which are sold either without a name, or else have that of the British

purveyor engraved upon them, more circumspection in making a purchase is called for. Such lenses vary exceedingly in quality, some being admirable instruments, others comparatively worthless. It must always be borne in mind that excellence in a lens is a matter of individual merit; in other words, because a particular lens of a particular make happened to be a good one, is no reason why another of the same make and class should be equally good; though, of course, makers of repute usually take good care, in testing their lenses, to reject all but the best, thus insuring a good average of excellence." Articles: "The Washington Convention," "The Art of Retouching," "Ammonia-Nitrate Silver Bath," "Tariff on Albumen Paper," "Apprenticeship," "Groups and Grouping," etc.

*Anthony's Photographic Bulletin* (New York) says, "Up to the present time there seems to be no easy method of securing the camera upon the tripod except the screw, and every camera manufacturer seems to take a special delight in making every new camera box with a new plate having a thread that is different from every other tripod screw ever before made, and especially different from that of any other maker. There are no other manufacturers using screws that have such an apparently unnecessary diversity of those exceedingly useful means of securing parts of apparatus together. And the time has come when those who will pay attention to these matters and the wants and needs of those that use their wares, will succeed and prosper, while those who do not will most certainly be ignored. What we need is uniformity in the mechanical parts of photographic apparatus, uniform and simple lens mounts, uniform and correct diaphragms, and uniform tripod screws. And we are very glad to note that such men as Dallmeyer, Ross, Beck, and others are trying to come to some agreement in the matter as far as lenses are concerned. We also hope that American opticians will see that it is to their interest also to take the same action and let us have an international system." Articles: "Photography in Colours," "Absorption Glasses for Photographic Prints in Natural Colours," "The Art of Retouching," "Photographic Lenses," "New Benzoline Limelight," "Poem Illustration," etc.

The *Practical Photographer* contains an interesting illustrated article on "Anatomy for Retouchers," and other articles on "Daylight Enlargements," "Practical Work," "Invention and Manufacture," etc.

## THE DECOUDUN PHOTOMETER.

### HOW TO USE IT.

THE following is sent by a correspondent, as an answer to "Muwa." The extract has been taken from Messrs. Geo. Mason and Co.'s catalogue: "The objects to be reproduced must first of all appear on the focussing screen, with full aperture of the lens, then place the stops. For measuring the time of exposure, place the photometer against the ground glass of the camera after having covered your head with the focussing cloth, so as to avoid any light on the instrument. Look from a distance of twelve inches at the hole placed on the left side of the photometer, and three luminous points and one larger one will be perceived. In turning round the button in centre, these points will get darker and darker until they become so confused that they cannot be counted. Now stop. Of course the largest point simply serves to guide; it always remains lit up. It is important for the exactness of the operation, that it should be impossible to count three points, still they must appear slightly. Then look at the table on the back of instrument. The time of exposure corresponds to the letter which is seen through the round hole. These times of exposures are for plates of ordinary speed. When using extra rapid plates, take two-thirds of the time noted only. For the very fastest plates, one-third the time will do. Should it happen that on a certain line the three points are seen and on the following completely lost, the average of the two must be taken." If your correspondent will turn the milled screw round until he can see the letter P in the round hole in front, and then proceed as above, he will get a correct exposure. I use the Marion plate, and can speak well of it.

ADDRESS WANTED.—We have been asked to insert the following:—"Mr. Wilkinson, late of 199, Hollydale Road, is requested to send his address to the Rev. A. G. Campbell, Marchfield, Bracknell."



## Holiday Resorts and Photographic Haunts.

### CHIPPING BARNET.

By W. RAISBECK SHARER.

CHIPPING BARNET, while it could only be designated a "holiday resort" by a stretch of imagination, as a "photographic haunt" offers many attractions.

Barnet has been a market town ever since the reign of Henry II., that monarch having granted a market charter to the abbots of St. Albans. Of late years the day has been altered from Monday to Wednesday, and though the market is but a small affair, photographers visiting the town on the latter day may find an opportunity for a snap shot or two at man and beast. One of the great advantages of this old town of "Chipping," or "Cheaping" (*i.e.* market), Barnet, as a photographic haunt, is that it is only about half-an-hour's ride from the King's Cross terminus of the G.N.R., so that it is well suited for Saturday afternoon excursions of metropolitan amateurs. Some care is necessary to avoid getting into a New Barnet train by mistake, which would land the excursionist nearly two miles away from the haven where he would be. To avoid such an error, therefore, book for "High" Barnet, and get into a train so labelled. On leaving the station turn to the right and go up the steep incline. At the top a wide and beautiful view is to be had, and although not altogether suited for photographing, if anyone happened to have with him a long-focus lens, such as would be used for mountain scenery, an exposure might be made with advantage. The cottage hospital too stands on the right at the top of the station path, and will, if "carefully posed," yield a picture. Passing up the main street of the little town, the "Red Lion Inn" is seen on the left side of the road, and just beyond, on the opposite side of the way, Park Road branches off. From the corner of this road a very good view of Middle Row, with the parish church behind it, may be had. The houses forming Middle Row are shortly to be pulled down for town improvements, probably within six weeks, so that, apart from the question of picturesqueness, a photograph of this spot will shortly become of interest. Going through the passage from High Street (between the end of Middle Row and the church), one comes face to face with the gates of Queen Elizabeth's Grammar School, which, with the ancient dining hall for a background, make a nice picture. The church may best be taken a little further along the road; which is known as Wood Street; just outside the brewery is an excellent coign of vantage. Still further along Wood Street will be found Jesus Hospital (almshouses), which may be thought worth a plate. The piers on the gates have let into them a medallion bearing the arms of James Ravenscroft, the founder, and the date 1679. Proceeding along Wood Street, Barnet Recreation Ground is reached, and here the swans in the pretty ornamental water will give the detective-camera man another chance. Returning from the Recreation Ground by the gate opposite the "Black Horse Inn," the photographer had better turn to the left down Ravenscroft Avenue, and follow the road without taking any side turning till he finds Christ Church before him. By the way, I ought to have mentioned that in High Street just before you come to Middle Row, and on the right side when you are coming up from the station, is the studio of Mr. E. A. Maxwell, a skilful and obliging photographic artist, in the best sense of the word, who stocks plates, paper, and all photographic accessories.

But *revenons à nos moutons*. Christ Church makes a very fair picture, and the lane which runs at the back of it, a very beautiful one if a few children, etc., are introduced. If service is going on, this lane may be reached through the vicarage garden, but at other times the gate is locked, and it is necessary to turn up the "New Road," in which Christ Church stands, for about a hundred yards, in the direction of the town, and cut down a narrow lane, with an entry on the left of the road between two posts. When you come in sight of the back of the Vicarage, and the lane is joined on the right by a branch, you will see right before you the tree-shaded portion of the lane, of which you ought to be able to make a picture. If you turn down the branch of the lane opposite the Vicarage you will emerge on Hadley Green, just at the end of the High Street; if, instead of

doing this, you keep straight on in the original direction of the lane, you will, after crossing two fields by a footpath, emerge on the further side of Hadley Green. On the side of Hadley Green nearest Christ Church, and close to the remoter end of it, will be found the mouldering remains of the village stocks—any child will point them out, and it may be found not a bad idea to get him to put his feet in them and photograph boy and stocks together. Then get on to the main road which runs across the green, and follow it for a very short distance (as it runs away from Barnet) till just past Hadley Brewery you come to a corner on the right, where a road branches off; this is known as Mill Corner, and gives a nice picture if photographed from a short distance down the branch road. Make a note of this, and proceed along the main road till, having passed through the village, you come to Hadley High Stone and Obelisk, standing at a fork in the road, and erected to commemorate the Battle of Barnet. This looks best when the camera is so placed that the villas at the entrance to the Hatfield road form a background. Then let the way be retraced to Mill Corner, and turn down the branch road till Hadley Church is reached. This is the plum in the pudding; the tower doorway, with its curious date, which looks like 1999 although it is really 1494, is well worth a plate to itself, more especially as the figures are rapidly succumbing to the weather. There are three very good views of the church to be had—one from the road, as you approach the church from Hadley or Barnet. A complete picture of the tower, however, owing to foliage which comes in the way, is not possible from this point when all the leaves are on the trees. Another view is to be had by taking the camera down a passage just between the cottages and the large white gates leading to the common and woods. In taking this picture some care is necessary to prevent the walls of the passage from entering into the composition. The third and best exposure point is in the churchyard, on the path, and as near the Woods end of it as will allow the whole picture of the church to be got on the plate without the intervention of the boughs of an overhanging tree. A very nice little scene is to be had by photographing a garden with a pond in it that may be focussed over the fence on the north side of the churchyard. An old tree under which Latimer is said to have preached stands close outside the churchyard, and a picturesque view of the church tower, embosomed in foliage, may be secured by making an exposure under the chestnut trees which stand in a row outside the churchyard on the left, looking towards the Woods.

In Hadley Woods many peeps are to be had, but space fails to enumerate them. I trust, however, that enough has already been said to show that a profitable day may be spent with the camera at Chipping Barnet.



FRAMES.—Mr. W. F. Slater, of 169, Southampton Street, Camberwell, S.E., has sent us a photograph framed by him with considerable taste. The frame is well made, his prices are reasonable, and we consider his work quite up to that of other and more expensive frame-makers. He will be pleased to send a price-list upon application.

THE BLACKFRIARS PHOTOGRAPHIC AND SENSITISING COMPANY, 1, Surrey Row, Blackfriars, London, S.E., was originally established for the sale and manufacture of sensitised paper. Their paper has deservedly become popular, and the Company have now launched out into the general trade of photographic dealers, we believe with considerable success. We have their catalogue before us, and would commend it to the attention of our subscribers, it being exceedingly well got up and arranged in a comprehensive form.

SCENES OF NATIVE LIFE.—We have received some very excellent photographs taken by Mr. Ernest W. Henderson during a six months' cruise on board the yacht *Sybil* among the South Pacific Islands. They include examples from Samoa, Fiji, Raratonga, Savage, Stewart, the Solomon Islands, and some from New Zealand. In all, some 112 have been published by Messrs. W. A. Mansell and Co., 271 and 273, Oxford Street, London, W. "The Fijian Lady," "Stewart Island Girl," and "Samoan Girl" are admirable. The prints "War Canoe, Solomon Island," and "Lower Nikotapu Falls, New Zealand," give us some idea of the charming places visited by Mr. Henderson. The prints are sold at 1s. 6d. each, or 10s. per dozen. All the photographs have been taken within the last three years.







## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BARROW-IN-FURNESS AND DISTRICT CAMERA CLUB.**—A meeting of those interested in the formation of a Society was held on the 18th inst., and it was decided to form a club. The President, Vice-President, officers, and committee were elected, and times of meeting decided. The names of any intending members will be gladly received by any member of the Club, or by the Hon. Secretary, Wm. Sewell, 69, Cavendish Street, Barrow.

**ENFIELD CAMERA CLUB.**—On the 12th July, Dr. Cresswell conducted a party of members to Major Taylor's park, and some very good views were taken. The ordinary meeting was held on the 16th inst., the President, Mr. D. G. Pinkney, in the chair. Several members brought prints for inspection, and some whole-plate platinotypes, done by Mr. Knight, were very much admired. The Secretary laid on the table Dr. Emerson's work, "Pictures of East Anglian Life." Two new members were proposed. The club was formed in the end of May, and now numbers twenty-four members.

**GLENALMOND PHOT. CLUB.**—At the fortnightly meeting on the 12th inst., Mr. A. S. Reid gave a lecture upon "Gelatin Chloride of Silver Emulsion Printing." A series of photographs to illustrate various tones and surfaces was exhibited, and practical demonstrations in toning and surfacing were given. After the lecture the usual exhibition of members' photographs and new apparatus took place.

**HEREFORDSHIRE PHOT. SOC. AND SHROPSHIRE CAMERA CLUB.**—A field-day was held on the 17th inst. at Ludlow and Downton Castle. At three o'clock brakes left Ludlow for Downton. Several plates were exposed on the Castle (by permission of Mr. A. R. Boughton-Knight); Hay Mill also afforded a choice subject. A few members remained in Ludlow, and exposed plates on the "Feathers" and other good subjects.

**HOLBORN CAMERA CLUB.**—The last meeting was held on the 18th inst., Mr. Knights in the chair. Mr. Cobb read a paper on the "Difficulties of Mounting." He thought it was a rather important matter, which was to a certain extent overlooked in the various photographic papers. Now and then he found it would turn up, but in a very haphazard sort of way. With regard to the mountant, he did not recommend the use of those advertised by various firms, as no preparation would keep good for all time, but to use starch, and make it fresh each time it was required. After removing the prints from the water he laid them face downwards on a piece of glass, and with an ordinary brush laid on the mountant; care must be taken not to put too much on the back of the print, as the excess will ooze out at the side, and disfigure the mount, especially an enamelled one. With regard to getting the picture in position on the mount, he recommended, before wetting the print to lay it on the mount and mark the corners with a pencil. Mr. Cobb then proceeded to mount several prints on various descriptions of mounts, and in answer to a question said that he did not use a squeegee, but always had two or three thicknesses of blotting paper, and rubbed firmly with the open hand. The evening terminated with a vote of thanks to Mr. Cobb for his very instructive and useful paper. Next Friday Mr. Chang's slides of the Paris Exhibition will be shown.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—Meeting held on the 18th inst., at eight o'clock. The Vice-President, Mr. Alf. N. Miles, occupied the chair. The Secretary read a letter from the Editor of the AMATEUR PHOTOGRAPHER, consenting to receive and judge the silver prints to be sent for competition August 31st, and kindly placing the Bronze Medal at the disposal of the society, which was gladly accepted. Mr. Thos. Child then proceeded with his lecture on "Photography in China," illustrating his remarks with numerous negatives and prints, showing a specimen of his book on photography, printed in Chinese, and other curious documents. Several questions were found in the question box, and duly discussed. The next meeting of the Lewisham Camera Club takes place on August 1st, when the Secretary will read a paper on his recent visit to Jersey.

**LIVERPOOL AM. PHOT. ASSOC.**—On Saturday last (19th July) the members of this Association, together with their friends,

visited Bolton Abbey. The party left the Exchange Station in special saloon carriages soon after ten o'clock, arriving at Bolton Abbey Station at a little before two o'clock. Upwards of 120 pictures were taken of different portions of the Abbey, the Strid, and picturesque spots in the immediate neighbourhood. The party returned at 5.35, arriving in Liverpool about nine o'clock.

**LONDON AND PROVINCIAL PHOT. ASSOC.**—The subject on July 24th will be "Printing under Different-Coloured Media," with examples by Mr. O. Scholzig. July 31st: "Home Portraiture;" discussion opened by Mr. W. E. Debenham. Visitors invited.

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES' PHOT. SOC.**—The last meeting was held on the 15th inst., Mr. James Brown in the chair. Mr. H. M. Smith, of the Eastman Company, attended to exhibit and explain the Kodak and new rollable transparent film. In introducing his subject, Mr. Smith said he would naturally be expected to refer to the attacks which had been made upon the Kodak, and, in fact, he was there partly for that very purpose. He emphatically protested against anonymous and erroneous statements which had appeared in one of the photographic papers, and he especially invited the writer, who signed himself "Newcastle," to come forward, if present, and argue the matter out; an invitation which, however, was not responded to. It was the intention of the Company, wherever the identity of a correspondent could be established, to go boldly to him and afford every facility for the settlement of disputed points. Had any of these anonymous gentlemen given the most cursory examination to the Kodak they would have found that the lens is not a single non-achromatic; and as to price, that was entirely a matter between buyer and seller. He wished to state, in as public a manner as possible, that in the No. 1 Kodak the lens was not a single but a periscopic—a doublet lens. It was not achromatised, but was placed so as to work at its chemical focus, and he could appeal to results to show its quality. With the sole exception of the No. 1, all the other forms of Kodak sent out by his Company were fitted with rapid rectilinear lenses made by one of the principal firms of lens makers in America, and they would bear comparison with any in the market. The focus of the quarter-plate was five and a quarter inches, and the 5 by 4, six and a half inches, and all were capable of adjustment to various distances. Results of exposures taken in the Kodak during the Convention were passed round, some hand exposures and others with a tripod, as well as enlargements from the same negatives. It was intended to demonstrate the development of the films, but time did not admit. After remarks from Messrs. Dunn, Park, Pike, Hemy, the Chairman, and others, a vote of thanks was accorded to Mr. Smith for his address.

**SHEFFIELD AND DISTRICT OPTICAL LANTERN SOC.**—A general meeting was held on the 16th inst., the President, Dr. Manton, in the chair. Arrangements were made for excursions during the remainder of the season. Mr. Wood was the winner of the Sheffield Photographic Company's prize for the best negative. It was decided to postpone the competition for the President's prize till the winter, when the competing slides would be judged by means of the optical lantern.

**SEEN VALLEY PHOT. SOC.**—A general meeting was held on the 8th inst., Dr. Farrow, President, in the chair. Mr. W. Armistage was proposed as a member. The President read a paper on "Printing, Toning, and Mounting." Several gentlemen took part in the subsequent discussion. A considerable number of negatives and prints were exhibited by various members and discussed. On the occasion of the recent stone-laying ceremony of the Cleckheaton Town Hall, several members had taken instantaneous photographs of the scene, and it was unanimously resolved to make two enlargements from one of these (by Mr. Knowles), and present them, with the compliments of the society, to Mr. Wm. Anderton, J.P., of Elm Bank, who laid the stone, and to Mr. Elymas Wadsworth, Chairman of the Town Hall Committee.

**WOOLWICH.**—Owing to the inclemency of the weather, only eight cameras put in an appearance at the rendezvous for the outdoor meeting on the 19th inst. Some good negatives were secured of Belvedere Park and neighbourhood. Indoor meeting August 13th.

**CHANGE OF NAME.**—We are asked to state that the business which has been known as being that of Mr. Robert Abraham will in future be known under the name and title of Adams and Co., and will be carried on at the same address, 81, Aldersgate Street, London, E.C. Mr. Abraham died in July, 1887.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4031. **Brittany.**—I am intending to spend my summer holidays at Concarneau, in Brittany. Can anyone tell me whether I can get English-sized plates at or near that town?—**LEMONDS.**

4032. **Dark-Rooms.**—Will any reader say if there are dark-rooms obtainable at any of the following places: Nuremberg, Munich, Venice, Milan?—**F. E. CURREY.**

4033. **Matlock, Plates at.**—Will someone kindly say if Thomas's or Ilford plates can be obtained in Ashbourne and Matlock, and from whom?—**JEAN.**

4034. **Reducer.**—I shall be much obliged if some brother amateur will kindly give me the formula of an efficient reducer for negatives?—**ETRIE.**

4035. **Fixing Bath.**—Can anyone tell me of a good fixing bath for negatives? The one I am using now, viz., 4 ozs. hypo to 20 ozs. water, does not seem strong enough to make them clear.—**ETRIE.**

4036. **Electric Light and Photography.**—Could Mr. Hepworth or any other gentleman kindly tell me if eight such batteries as described on page 453 of the **AMATEUR PHOTOGRAPHER** give enough power to light one 16-candle power lamp. If not, how many would, and where would be the cheapest place to get the plain carbon and zinc plates, also the other things needed?—**ANTIQUE.**

4037. **Backing Plates.**—I am going away for a few days, and intend backing my plates with black paper put on with glycerine. I should take paper and wipe glycerine off plates at night, and wrap them up face to face in pairs, but should be about two weeks before I develop; would the small quantity of glycerine left on after wiping harm the plates in any way?—**ANTIQUE.**

4038. **Detective Camera.**—I wish to make a quarter-plate detective camera, and should be obliged if any reader would give me information as to where I could obtain a lens, non-achromatic; also price.—**PENZANCE.**

4039. **Mounting.**—Will some one kindly tell me which is the best mountant for prints?—**TOFF WALL.**

4040. **Cheap Camera.**—Will any reader tell me which is the cheapest and best camera for in and out door work? also what size, ruby glass required in dark-room?—**PKKE.**

4041. **Keeping Toning Bath.**—Can any friend tell me how to keep my toning bath good? I use borax  $\frac{3}{4}$  oz. to 1 quart water. Take 8 ozs. of same, and add 1 gr. gold. It acts well, but will not keep.—**J. K.**

4042. **Optics.**—Can anyone tell me the name of any good book on lenses, giving the results of their different combinations, etc., and if possible where such a book can be got, and about the price of it?—**J. H. T.**

4043. **Bromide Paper.**—Can anyone tell me if by modifying the strength of ferrous oxalate developer or by the addition of any chemical, I can obtain different tones on the above paper? If possible please give particulars. Am I right in using ferrous oxalate developer of the strength of 1 part of iron (saturated solution) to 6 parts of potassium oxalate (saturated solution), with only a trace of bromide of potassium for rich black tones? In making up the developer, of course, I mean adding the iron to the oxalate of potash.—**J. H. T.**

4044. **Loan of Slides.**—Will any brother amateur kindly let me have the loan of two or three half-plate dark slides for a week. I will pay him for

his trouble, and feel greatly obliged.—**PICK** (address with Editor.)

4045. **Lowestoft.**—Would any of your readers kindly tell me the most interesting places to photograph at or near Lowestoft?—**G. R. B.**

4046. **Hockins' Lens.**—Could any of your readers who have used Hockins' R.R. and wide-angle say whether they have found these lenses of good quality?—**H. HOLDSTOCK.**

4047. **Guinea Hand-Camera.**—Is the "Guinea" hand-camera worth that money?—**HARRY HOLDSTOCK.**

## QUERIES UNANSWERED.

April 4th.—Nos. 3864, 3874, 3877.

18th.—No. 3718.

25th.—Nos. 3727, 3742, 3747.

May 2nd.—No. 3758.

16th.—No. 3820.

23rd.—Nos. 3839, 3843.

June 6th.—Nos. 3883, 3884.

13th.—Nos. 3885, 3896, 3901, 3910, 3911.

20th.—Nos. 3917, 3918, 3922, 3924, 3927, 3928, 3929.

27th.—Nos. 3933, 3935, 3939, 3940, 3946.

July 4th.—Nos. 3950, 3953, 3967, 3968, 3969, 3972.

11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3990, 3991, 3992, 3994, 3995, 3997.

18th.—Nos. 4003, 4004, 4005, 4007, 4008, 4009, 4013, 4014, 4016, 4017, 4020, 4021, 4023, 4024, 4025, 4026, 4027, 4029.

## ANSWERS.

3914. **Copying Plans.**—Ferro-prussiate is the cheapest and best process. Messrs. Sharp and Hitchmough, Dale Street, Liverpool, undertake the work.—**THE SMITH.**

3943. **Self-Cocking Shutter.**—The automatic repeater shutter, made by the Blackfriars Photographic Company, Surrey Row, Blackfriars, would be the kind of instrument you require. An illustration of it appeared in the **AMATEUR PHOTOGRAPHER** of April 4th.—**THE SMITH.**

3999. **Strength of Solution.**—At ordinary temperature, say 58 degrees, the solution would contain a little over 19 grains to the ounce.—**THE SMITH.**

4001. **Land's End District.**—If "Tourist" will give me a call when he visits this district I shall be pleased to give him any information about the neighbourhood he may require. My address is care of Watson, Chemist, 15, Market Place, Penzance.—**H. TONKIN.**

4006. **Barmouth.**—Plenty of good views to be had here. Dolgelly, eight miles away, is worth twelve plates. If "C. G. L. C." will send me his address, I will write him particulars.—**KERSAL** (address with Editor).

4010. **Focus.**—The length of focus is ascertained by measuring the distance between the focussing screen and the object-glass of a single lens, or the diaphragms (stops) of a doublet lens. Focus sharply on some distant object, and measure accordingly. Next measure accurately the diameter of each stop aperture. Divide the length of focus by this diameter, and if the answer is, say 28, the stop is called  $f/28$ ; thus 10 inch focus, with 1 inch diameter of stop, would be  $f/10$ .—**TOFF WALL.**

4010. **Focus.**—The equivalent focus of a lens is the plane in which parallel rays are brought to a point, and its length is measured from that plane to the optical centre of the lens. The back focus is understood to be the distance from the back lens of a combination to the focussing screen, and (optically) is an useless factor.—**THE SMITH.**

4011. **Lenses.**—Wide-angle, portable symmetrical, Euryscope, and rapid rectilinear are all more or less arbitrary names. A wide-angle rectilinear has a focal length about equal to the shortest side of the largest plate it will cover, and includes an angle of 80 or 85 degrees, but can seldom be used with an aperture larger than  $f/16$ . A portable symmetrical is of slightly longer focus than the preceding, works at about the same aperture, and includes an angle of about 70 degrees. The rapid rectilinear has a focal length about equal to the diagonal of the plate, and includes an angle of 45 or 50 degrees, the largest aperture being  $f/8$ . A rapid Euryscope is similar to the rapid rectilinear, but the lenses are of greater diameter, allowing an aperture of  $f/5.65$  to be used. "Achromatic" means free from colour, and "aplanatic" free from error.—**THE SMITH.**

4012. **Llandudno.**—W. Lee, Goddard Street, lets amateurs use his dark-room at a charge of 3d. for a quarter of an hour. I believe Brooks, chemist, Mostyn Street, has a dark-room for customers. I used Ilford ordinary plates, short exposures, with success.—**KERSAL.**

4015. **Lens.**—In the first case there is the distortion of the single lens, small in itself, but still sufficient to be apparent in architectural subjects. If the lens be behind the stop, straight lines near the edge of the plate will be bowed out and produce "barrel" distortion; but if the lens be in front of the stop, the reverse takes place, and "cushion" distortion appears. Anyway, it is best to carry the

single lens you are using at the back of the tube, as it is there well shielded from stray light. There is also some advantage in having the side of greatest convexity away from the plate.—**THE SMITH.**

4018. **Developer.**—See answers to 3988 in **AMATEUR PHOTOGRAPHER** of 18th inst.—**W. H. H.**

4018. **Developer.**—Thomas's hydroquinone solution:—

No. 1.			
Hydroquinone ...	...	...	160 grs.
Sodium sulphite ...	...	...	2 ozs.
Citric acid ...	...	...	60 grs.
Potassium bromide ...	...	...	15 "
Water, to ...	...	...	20 ozs.

No. 2.			
Carbonate of potash ...	...	...	2 ozs.
Washing soda ...	...	...	2 "
Water, to ...	...	...	20 "

For use take 1 oz. of each and add 3 ozs. of water.—**HYDRO.**

4019. **Focus.**—Will be remedied by using a smaller stop.—**W. H. H.**

4022. **Battons-y-Coed.**—Swallow Falls,  $f/16$ , Ilford ordinary; 2 secs. Miner's Bridge, ditto; take both in morning. For Fairy Glen afternoon is best. I used  $f/32$ , gave 12 secs., and got a very good negative.—**KERSAL.**

4028. **Lens for Hand-Camera.**—Taylor, Taylor, and Hobson make a first-class hand-camera lens, at a very reasonable price.—**THE SMITH.**

4030. **Manchester Ship Canal.**—Go by rail to Liverpool, then by boat to Eastham, and walk along the works to Ellesmere Port. You will then see the best and most completed portion of the canal. The large locks are complete, and the water will soon be let in. Take the largest camera possible, as the works are enormous in size.—**KERSAL.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S POST if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED. AM. PHOTO.**

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**D. RITCHIE.**—You will find the half-plate lens fully cover the plate.

**MUTE.**—The prints are very fair for beginners' work. In "Duddington Loch" you have some reeds or tops of flags showing in the foreground. Be careful not to get these on your plate, and select a view where the foreground is broken up. "From Granton Pier" is really a very good photograph. See that in printing your toning bath is quite clean, and made strictly by the formula. The shutter you have is a useful one; do not work it too quick a speed, or you will have a jar, and possibly spoil your picture. No really good work can be done unless you have rack and pinion motion to your camera. It will give us pleasure to help you.

**CAMERA.**—We have noticed the matter in "Our Views." Any of the secretaries of photographic societies will help you as to rules, etc. See *Photographic Reporter*.

**C. W. BASSANO.**—You are to be congratulated upon the "interior" you send us; it is admirable, we might say faultless. You ask us to return it, but we should like much to keep it as an example of what may be done after having "studied photography for only a few months." Please send us a post-card if we may retain the print.

**D. FORBES.**—Your letter is most interesting. You should be quite safe with the firm you have ordered the camera of. Should you at any time have any difficulty, we shall be pleased to inspect apparatus, etc., for you.

**FRANCIS B. WILLIAMS.**—It is quite possible the writer of those notes was at one time on the staff of the **AMATEUR PHOTOGRAPHER**, and it is within the bounds of possibility that he may have written the note with reference to your print, we cannot say. We publish the note in another column.

**E. W. G. M.**—You cannot improve upon starch. Thin glue with methylated spirit makes a good mountant. It is quite possible to enlarge with the lens, provided it gives an absolutely sharp picture. If you try the lens it will soon be apparent as to what size you can enlarge up to with it.

**C. W. CORBISHLEY.**—Many thanks; published in another column.

**A. M. G.**—The negative is smashed to a thousand pieces. It is not safe to send negatives in envelopes, even though they be packed between two pieces of card. Sorry we cannot help you. Do you use a clearing bath?

**LENS.**—We cannot improve upon the order. C is a very good lens, but we would rather have A, B, or D.

**CHAS. F. GOUGH.**—You will need a permit, for



which purpose you had better apply to the Russian Consulate. We strongly advise No. 3. You can see one at our office should you be in town.

ILFORD.—Yes, and well made; well worth the money.

G. R. B.—See AMATEUR PHOTOGRAPHER, p. 133, vcl. viii.

CYCLO-PHOTO.—We prefer wood, but many use the others.

MISS MAYERS.—The publishers, Messrs. Hazell, Watson, and Viney, Ltd., 1, Creed Lane, E.C., will give you full particulars.

H. RENDELL.—Should advise the black paper, but why not try the ground-glass plates?

SILVER.—You are not happy in selection of point of view. In one you have the foreground crowded with the bridge, and the other it is all foreground, and the bridge becomes only an accessory instead of, as you intended, the principal object in the picture. In your portrait group the posing, especially the left-hand figure, is in an unnatural, and, consequently, strained position. Models can, of course, make or mar the picture. Yours have not helped you. Your exposure appears to be correct. Printing might be a little deeper.

W. H. SCOTT.—The July "Monthly Competition" will be reviewed in the *Photographic Reporter*, and not the June. We quite understand your explanation. The "Monthly Competitions" will be continued, and we mean to make the reproduction of prize and other pictures a feature in the *Reporter*, as re-modelled. We hope to bring out a "Prize Tour Number" as usual.

A. J. LANGTON.—We have written to Mr. C. Roseden, and told him that unless he completes the matter with you we shall publish the correspondence. We shall be glad to hear from anyone who has been in communication with Mr. Roseden in answer to his Sale and Exchange advertisement, which appeared in these columns in our issue of the 11th inst.

H. TONKIN.—Do not quite understand what you mean. Please write more clearly.

M. D.—(1) We have not seen A. B. wrote upon last week. (2) Do not think it likely you can hire a hand-camera.

J. H. H.—The lenses 2 and 3 are equal, and 1 and 4 are really each as good as the other. We should perhaps prefer 3 and 1. Plates A and D. Shutters No. 2.

W. H.—(1) See paragraph this week. (2) Yes. (3) Use a Boyle's ventilator—your architect will know—and a baffle opening just above the floor level. Put your plates back into the box as sent out by the makers; in all probability before they reach you they will have had more shaking about than you will ever give them.

A. H. BARNETT.—We wanted the print to block for the "Holiday Work" number. Many thanks for it. Glad to hear about the new quarters.

FREDERIC T. CORBETT.—All you say may be true, but there is nothing new, and it does not affect the point which we raised in our leader. The best article will always command the best price. It is at the option of the buyer whether he buys a cheap or dear article. We do not publish your letter, because it brings nothing new to bear upon the discussion.

EDGAR HESSE.—Your letter *re* "Buyer and Seller" really contains nothing except what would be a gratuitous advertisement of a camera which is not yet on the market, and may not be a success when it is. If you get your friend to send one to us for inspection and return, we will be only too pleased to point out to our readers its good points.

REV. J. T. TROTT.—We thank you for the letter, but the matter of "Buyer and Seller" has been sufficiently dealt with in our columns. We have no doubt that the "result will be that the dealers may be led to give ready money customers the attention they may fairly expect, and that the goods will be sent out in working order."

W. J. D. WALKER.—We shall use excerpts of your letter in our leader upon the whole subject later on.

E. GRAHAM.—The lens is an ordinary French lens, and gives very fair definition. The second lens in our hands has always worked exceedingly well, and we have never had any difficulty in securing absolute sharpness.

C. HUSSEY.—Your letter will appear next week.

M. T. BARTROP.—Many thanks for your letter; we are very pleased that the medal meets with your approval. It is our endeavour to deserve success.

R. A. GOLLEDGE.—The letter upon silver printing will be published in our next issue, and a proof sent you for revision.

H. L. HUDSON.—Let us see the "much better ones." The one you sent is very faulty, badly focussed, the landscape being entirely sacrificed to the small group on river bank, which lends nothing to the picture; the long stretch of foreground is objectionable, the printing is carelessly done, and it will be a pleasure to see the "much better ones." In competing for prizes you should always send your best.

L. QUID.—We should advise No. 1, 2, or 4.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures unaided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the maximum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

"Amateur Photographer."—AMATEUR PHOTOGRAPHER, from commencement to present date, 11 vols., complete and perfect, two first vols. bound half roan; 30s. lowest; a bargain.—3, Walpole Street, Wolverhampton.

AMATEUR PHOTOGRAPHER, vols. 1. to xi., first eight bound; 20s.—Rendell, Bishops Nympton, South Molton.

"Amateur Photographer," etc.—What offers? 38 AMATEUR PHOTOGRAPHERS, earliest number Dec. 21st, 1888; 20 "Photography," earliest April 18th, 1889.—M. Tyrell, Polygon, Olifton, Bristol.

Burnishers.—Rock's cabinet burnisher; 10s.—Rendell, Bishops Nympton, South Molton.

Apparatus.—Sundries, including quarter portrait lens.—For list apply, Drinkwater, 44, Malvern Hill Road, Birmingham.

Cameras, etc.—Half-plate, brass-bound, long-focus camera, reversing double swing back, three double backs, morocco leather case, as new; price £5; a bargain; seen any time.—A. J. Sells, 194A, Mare Street, Hackney, N.E.

Watson's 10 by 8 Premier camera and slide, in solid leather case, quite new, Ashford's patent tripod; whole cost £14 15s.; will take £11.—J. C., St. James' Villa, Maidenhead.

10 by 8 Exhibition camera (by Sands and Hunter), with four double dark-slides, patent shutter, all fitting in two solid leather cases, the whole in splendid condition; cost £20; cash £12.—To be seen at Watson and Sons, 313, High Holborn.

Camera, Lens.—Will sell or exchange half-plate Studio camera, 2B portrait lens (by Grubb). Wanted, 15 by 12 rapid rectilinear, by good maker.—Stephenson, Photographer, Cleckheaton.

Camera, Lens, etc.—Excellent 10 by 8 camera, brass-bound, double swing, reversible back, three double slides in cases, Lancaster's best wide-angle Rectigraph lens, Iris diaphragm, excellent legs, with ball and socket platform for camera, all good as new, in perfect condition; £8.—Bassano, Old Hill, Staffs.

Lancaster's 1889 quarter-plate Instantograph camera, lens, shutter, three double dark-slides, quite new, latest improvements, cost 52s., take 42s.; also pair 4 in. condensers and objectives for lantern, unmounted, 7s.; deposit; approval.—Geo. Elly, The Stores, Uxtoeter.

Half-plate camera, leather bellows, reversing back, three double slides, English lens, macintosh focusing cloth, two bags, all equal new; cost £8; will take £5.—Can be seen at W. J. Chadwick's, St. Mary's Street, Manchester.

Camera Case, Lens, etc.—Whole-plate waterproof canvas case, lined green baize, stiff sides, inside measurement 11 by 8 by 11, handle, shoulder strap, lock and key, good condition, 12s. 6d.; Lerebours' cabinet portrait lens, Waterhouse diaphragm, gives splendid definition, good condition, 40s.; enlarging lantern, 4 in. condensers, combination portrait lens, japanned tin body, in wood case, complete, 25s.—Williamson, Clayton Park Square, Newcastle-on-Tyne.

Camera, Tripod, etc.—½ by ¾ camera for sale,

folding tripod, one dozen plates, two half developing dishes, box, etc.—Address, E. Dixon, Snitterby, Kirton Lindsey, Lincs.

Double Backs.—Twelve Marion's Parcel camera backs, perfectly new, cost 21s., for 13s.; three quarter double backs, cost 16s., for 10s.; 5 by 4 R.R. lens, cost 25s., for 17s., splendid definition.—No. 63, AMATEUR PHOTOGRAPHER, 1, Creed Lane, Ludgate Hill, London, E.C.

Hand-Cameras.—Detective camera, quarter-plate, cheap.—A. F., 19, Highbury Park, N.

Optimus magazine hand-camera, new; cost 147s.; accept £6; bargain.—17, Sedan Street, Walworth.

Hand-Cameras, etc.—Quarter-plate hand-camera, Newman's shutter, holds six plates, two finders, R.R. lens, 84s., or offers; Optimus book camera, 3 double backs, 50s., or exchange wide-angle half-plate lens or quarter-plate roll-holder.—Z., 119, High Road, N.W.

Sale, Stirn's Secret camera, condition perfect; no reasonable offer refused.—Jack, Eden Cottage, Warrhill, Aberdeenshire.

Diamond hand-camera, with plates, quite new; 25s.—Hewitt, Market Place, Burslem.

Watson's quarter-plate detective camera, three double backs, equal new; cost 10 guineas; price 7 guineas.—Bygrave, 15, Canterbury Road, Brixton, S.W.

Watson's quarter hand-camera, three backs, equal to new; cost nine guineas nett; price six guineas.—Scargill, West Park Street, Dewsbury.

Jubilee Coins.—Jubilee sovereigns, half sovereigns, 4s., 2s. 6d., 1s., old crowns, and Lion shillings; what offers?—W. Buttle, Grangetown, Cardiff.

Lamp.—Snell and Brown's excellent dark-room lamp, patent Barton burner; 4s.—Rendell, Bishops Nympton, South Molton.

Lanterns.—Fair Newton's best, mahogany bodies, mechanical and gas dissolvers, mixed gas jets, good up to 20 ft. disc, complete in case, good as new; £7.—Bassano, Old Hill, Staffs.

Lenses.—Whole-plate Ross' rapid symmetrical, warranted perfect, no approval; price £4 10s.—A. W., 16, Warrior Gardens, St. Leonards-on-Sea.

Exchange Optimus half portrait (£6), as new, for good whole-plate R.R.—H. Gummery, Henwick, Worcester.

Lenses, etc.—Lens, rectilinear, 7 by 5, loose hood, with stops, working to f/8, best finish, quite new; 25s.; approval 6 stamps. Also solid leather camera case, quite new; 14s. 6d.—1, Hermitage Mews, Stamford Hill, N.

Half-plate portrait lens, with stops; cash offers.—D. Brickland, Abingdon, Berks.

Excellent portrait cabinet lens, cost 5 guineas last season, condition as new, price £3; also several good tripods.—Sprague, 35, Darnley Road, Hackney, London.

Lenses and Shutters.—Lancaster's half-plate Instantograph lens, Iris shutter; 18s., or exchange hand-camera, "Guinea" preferred.—Graham, Barnoch, Harrow.

Dallmeyer's 6 by 5 rapid rectilinear lens, perfect condition, what offers? Kershaw shutter, to fit 1½ hood, fits above lens; 15s.—Charles Holworthy, 7, Great St. Helens, London.

Lancaster's half-plate Instantograph lens and shutter, complete; 20s.—Lowson, 16, Westborough, Scarborough.

Medical Coils and Batteries, etc.—Medical induction coil, with bichromate battery, electrodes, and handles, in box, complete, cost 25s., also two medical coils with handles, in box, each 12s. 6d.; the above are quite new, never been used. Also two-cell pocket battery, for use with Trouvé's luminous jewels or other small lamp, not much used, cost 14s. 6d., for 7s. 6d.—Offers in cash or whole-plate requisites to T. M., 37, Bantnick Street, Leeds, Yorks.

Sets.—Whole-plate camera (by Ross), five double backs, fitted with Perken's rapid Buryascope, 9 by 7, Iris diaphragm, in solid leather case, legs, and all complete for £10.—Apply, Mitchell, 70, Cornhill, E.C.

Camera, bellows, 10 by 8, with four double backs, cone extension, tripod stand, inner frames, Sergeant's and Marshall's shutters, view finder, blize bags for dark-slides, and box for camera; to be sold a great bargain.—Apply at Stanley's, 13, Railway Approach, London Bridge, S.E.

Wanted to exchange Lancaster's quarter-plate Instantograph lens, shutter, tripod, two double backs, complete, and "The New and Practical Gardener and Modern Horticulturist," new, published in 16 parts at 2s. each, by William Mackenzie, for half-plate camera, complete, and will pay difference for good make; particulars.—William Barker, 4, Mount Street, Preston.

Beck's hand-camera, Beck's Autograph lens, Iris diaphragm, focussing arrangement, splendid shutter, time or instantaneous, or can use as a fixed focus, best workers use this camera, undoubtedly the most perfect hand-camera made; £8; cost £13 7s. a few months ago.—C. Kirby, 144, Commercial Road, Peckham, London, S.E.

Lancaster's quarter-plate Instantograph camera, lens, tripod legs, double dark-slide, two Tylar's metal double darks to fit, very little used; offers.—Rhodes, 27, Talbot Street, Manchester.



Half-plate camera, finest quality, with conical bellows, reversible back, double extension, three mahogany double backs, rectilinear lens, shutter, tripod stand, case, large paraffin developing lamp, frames, dishes, drying rack, and set of stoppered bottles, in excellent order; £4 10s.; cost more than double.—J. Browning, 111, Grange Road, Birmingham.

Half-plate camera and lens (by Perken, Son, and Rayment), with tripod and wood cabinet, price £2 2s.; quarter-plate set, as above, price £1 1s.; also three Tylar's half-plate metal slides, with glass adapter, hardly used, price 10s.—Charles Holworthy, 7, Great St. Helens, London.

Shutter.—Newman's patent diaphragm shutter, suit 8 by 5 lens, in good condition, 20s.; also Houghton's changing tent, nearly new, 25s.; dry plates, and other sundries.—Pratt, 27, Regent Street, Nottingham.

Tent.—For sale, an Eclipse ruby tent, large size, in excellent condition; 10s. 6d.—Mundy, 2, Long's Terrace, High Street, Kensington, W.

Violoncello and Bow.—Fine violoncello and bow; exchange for hand-camera, or sell.—3, Walpole Street, Wolverhampton.

### WANTED.

Camera Case, etc.—Half-plate camera case, state inside measurement, etc.; also shutter for 2 in. lens hood.—53, Beulah Road, Tunbridge Wells.

Camera case, quarter-plate, leather or canvas, with shoulder strap, good condition, moderate price.—Letter to Reingpach, Langham Hotel, London.

Camera and Lens.—Underwood's half-plate 1889 Instanto camera, Optimus half-plate R.R. lens; approval; state lowest cash price.—128, Coalbrookdale, Shropshire.

Hand-Cameras, etc.—Shew's half or whole plate

Eclipse pocket camera, with double backs. — F. Holmes, French Embassy, Albert Gate, S.W.

Lenses.—Ross' No. 3 portable symmetrical lens, Ross' 8 by 5 rapid symmetrical lens, first-class condition; approval, and lowest cash price.—J. H. Hoyle, Rochdale Road, Milnrow.

W.A. rectilinear lens, half-plate Optimus preferred.—Rice, St. Saviour's Vicarage, Battersea Park.

Either a Ross', or Dallmeyer's, or Beck's whole-plate rapid rectilinear lens, in exchange for a gentleman's English silver lever watch (by Benson, Ludgate Hill, London).—Address, Mrs. Vowles, Downside, Cobham, Surrey.

Sets.—Quarter-plate Instantograph, complete cheap.—Jno. Wilson, Altmere Street, Glenarm, Belfast.

Tripod.—A good tripod for whole-plate camera.—C. Smallridge, Ivybridge.

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## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.	Twelve Months, 10s. 10d.
POSTAL UNION .....	" " 6s. 6d.	" " 13s. 0d.
INDIA, CHINA, ETC. ....	" " 7s. 9d.	" " 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope, under cover to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

## THE LATEST.

### LIGHT BAMBOO STAND,

Height, 4 ft. Weight, 13 ozs.

With Cup and Ball Joint, and Plate for screwing to hand camera, complete... 6/-  
Screw on Cap for ditto ... .. 1/-  
With Rigid Head in place of Cup and Ball ... .. 5/-

Of all Dealers, or of the Manufacturers:

**H. PARK,**  
1, ORCHARD BUILDINGS,  
ACTON ST., KINGSLAND RD., N.E.  
(Near Haggerston Station, N.L.R.)



NOW READY.

Vol. I. No. 8.

THE SPECIAL SUMMER DOUBLE NUMBER OF

# THE PRACTICAL PHOTOGRAPHER.

Profusely Illustrated. 40 Pages. PRICE TWOPENCE.

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Eyes and No-Eyes. By Y. Wyddfa (with 3 illustrations).  
The Canadian North-West. By W. Ethelbert Henry.  
Photographic Travellers. No. 4 (illustrated).  
IN NATURAL COLOURS: Accomplished at Last.  
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Correspondence, Our Special Letters.  
Home Notes, Foreign and Colonial Notes, Society Items, Practical Work, Invention and Manufacture, Prints and Publications, Commercial Intelligence, Etc., Etc.

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"Amateur Photographer" Monthly Competition.

No. 15.—GENRE OR FIGURE STUDY.

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ONE PRINT ONLY. Must be sent in on or before the 14th August, endorsed "Monthly Competition," etc., to

THE EDITOR, "AMATEUR PHOTOGRAPHER," 1, CREED LANE, LONDON, E.C.



# The AMATEUR PHOTOGRAPHER

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Edited by CHARLES W. HASTINGS

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FRIDAY, AUGUST 1, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

THE fourth annual exhibition of the Photographic Society of India is to be held in Calcutta during December. The prospectus says—

"The exhibition will embrace every branch of art and manufacture connected with photography.

"Provided the Judges deem the exhibits of sufficient merit, the following medals will be awarded, viz.:—Five gold, fifteen silver, and fifteen bronze.

"These will be offered for competition as follows:—For Amateurs of the World, one gold, five silver, and five bronze medals.

"For Amateurs of India and Burmah, one gold, three silver, and three bronze medals.

"For Amateur Members of the Photographic Society of India, one gold, two silver, and two bronze medals.

"In addition to the above, a special medal will be given for the best photograph in the exhibition.

"The classes will be:—

- "Class 1.—Landscapes, Architecture, Interiors.
- "2.—Portraits and Groups.
- "3.—Genre Pictures and Studies.
- "4.—Photographs of Objects in Motion.
- "5.—Lantern Slides.
- "6.—Photo-Mechanical Processes.
- "7.—Apparatus and Appliances.

"Intending exhibitors must send the following particulars to the Exhibition Committee not later than November 1st, 1890:— (a) Name and address, and state if professional or amateur. (b) Probable wall-space required. (c) Number of pictures. (d) Class for competition. (e) Titles of pictures for catalogue. (f) Particulars of negative and positive processes. (g) How much of the work is exhibitor's own. (h) Prices of pictures, if for sale. (j) If not for sale, precise instructions should be given as to disposal after close of Exhibition.

"English and European exhibits should be despatched not later than October 1st, and those from America a fortnight earlier. All goods and pictures, carriage paid, should be addressed to the Exhibition Committee, Photographic Society of India, Asiatic Society's Buildings, Calcutta, and must reach them not later than November 15th, 1890."

Many of our readers will probably be anxious to know particulars, we have therefore given them at some length.

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A CORRESPONDENT, writing upon the wants of the photographer, says that a cheap plate more thickly coated is required, and suggests that perhaps the same might be supplied at from 3d. to 6d. per dozen advance on the Ilford prices. He also says, "I am surprised there is no English firm who make a white paper like the 'Aristotype,' or

'Obernetter,' now so largely in use. Will any manufacturer take the hint?"

\*\*\*

MR. PAUL LANGE, President of the Liverpool Amateur Photographic Association, and his party have returned from Iceland. He has succeeded in photographing Hecla's crater, and claims to be the first that has done this; the elevation is 5,200 feet. We shall have more to say about the trip later on.

\*\*\*

WE are afraid that some of our subscribers have trouble through unscrupulous people who advertise in the "Sale and Exchange" columns. A subscriber writes:—

"A few weeks back I had a quarter-plate set for sale, and forwarded on approval to the North of England, having, as I thought, a good reference, and an assurance they were "just the things wanted." After having sent them on, I received a watch valued, roughly, at 10s. in exchange, my camera and accessories being valued at £6 10s. Two months have elapsed, and I have only just succeeded in getting my apparatus returned."

The deposit system was established for the purpose of protecting buyer and seller. Anyone who is dealing honestly would not object to send his money to us, whilst if the seller knew it was in our hands, he would, of course, willingly send on the goods. We can only know of these irregularities through our subscribers, and beg of them at once to communicate with us in the event of their having any such experience as that which we have quoted.

\*\*\*

LITTLE has been heard about the Automatic Photographic Company, Limited. The *Capitalist*, a recognised financial organ, thus writes of them:—

"The prospectus of this Company was introduced to public notice in May last, when the 'revolution in photography' attracted a good deal of attention, and the proposals of the Company were favourably entertained. The consequence was that a heavy subscription for the capital was secured, and the Company was successfully floated. This important preliminary having been satisfactorily settled, the Directors, we understand, applied themselves to the task of putting the permanent working arrangements in train. Although the machines will deliver a portrait in forty-five seconds, it will be readily understood that the manufacturers could not promise to deliver the machines themselves in the same short space of time, nor anything like it. The Directors expressed the intention in the prospectus of placing out 1,000 machines as speedily as possible, and as soon as they were in a position to give the order to the firm it was placed in the hands of the contractors, Messrs. George Salter and Co.



the well-known manufacturers of automatic machines at West Bromwich. The firm is now hard at work upon the contract, but in planning out the details of a new branch of industry some time is naturally consumed in getting together the requisite working plant. We understand, however, that good progress has been made, and the Directors are satisfied that no time has been lost. Deliveries of machines are expected now to be made shortly, and we look forward to the Chairman of the Board making some statements at the statutory meeting, which will shortly be held, as to the stations that will be occupied and the time when this 'scientific wonder' will be available for public use and earning dividends. There can be no question that the novelty of this mechanical portrait taking will strongly recommend it to notice, and it is pretty certain to catch on to the public taste. As a commercial enterprise, the machines are full of promise. They ought to earn good dividends, and the anticipations of those who are best acquainted with the merits of the undertaking are very sanguine of commercial success."

\* \* \* \*

THE following advertisement has appeared for some days in the "Agony Column" of several London daily papers:—

WILL the Clergyman who wired for a "Facile" Hand-Camera please SEND his NAME and ADDRESS to Mr. Jonathan Fallowfield, Central Photographic Stores, Charing-cross Road, London, W.

It is really very good of Mr. Fallowfield to take so much trouble and go to such expense to secure the name of that absent-minded clergyman who sent a "wire" without appending name or address. We shall find Mr. Fallowfield circularising all the clergymen in *Crockford* in order that the poor man shall have a "Facile." Talk about enterprise! Mr. Fallowfield will take some beating.

\* \* \* \*

READERS of the AMATEUR PHOTOGRAPHER are all cognisant of the admirable work that has been done from time to time by Mr. Lyd. Sawyer, and exhibited by him at different photographic exhibitions all over the kingdom. At the present time much of his work is being shown at Singleton House, Newcastle-on-Tyne, and later we are promised that his work shall constitute a "One-man" exhibition at the Camera Club. No. 4 of *Sun Artists* is to be devoted to the reproduction of some of his masterpieces.

\* \* \* \*

WE have several books on our table for review, but must hold them over for a week or two. The publishing of photographic books has advanced considerably during the last two years.

\* \* \* \*

THE holiday season being now in full swing, we shall be glad of short accounts of "Holiday Resorts and Photographic Haunts," from 500 to 1,000 words. These short articles are much appreciated by many of our readers.

\* \* \* \*

THE *Photographic Reporter* has been remodelled, and is now on sale. It is intended that it shall take the first place as a high-class illustrated magazine. Many articles of interest are included, and a most exhaustive editorial summary of events. The frontispiece is a view of "The Goyt, near Buxton," the photograph from which it was reproduced was awarded the first prize in the June Competition of the AMATEUR PHOTOGRAPHER. New features will be added to the *Reporter* from time to time. One we may mention has been added, viz., a "Directory" of photographic societies; should any society be omitted, it is hoped that the Secretary will put himself in communication with the Editor.

Every month an illustrated article will be included in the contents, and the criticising of photographs contributed to the AMATEUR PHOTOGRAPHER competitions will be a feature. In the "Editorial Notes" efforts will be made to mention all matters of importance that may occur in con-

nection with photography. We may here quote the concluding paragraph of the August "Notes":—

"In the foregoing 'Notes' we have endeavoured to place on record what has come under our notice during the past month the work has, we fear, been but indifferently performed, but it will at least serve as an earnest that we hope to do better, and to be able to give in the *REPORTER* a monthly summary of all the principal events. We shall use this column for the description of all sorts and conditions of men and matters. We shall give names of manufacturers, recommend apparatus, quote prices, etc., etc., trusting that by so doing we may as nearly as possible please all, advancing the interests of photography and photographers, and so build up for the PHOTOGRAPHIC *REPORTER* and ourselves a reputation for uprightness and sincerity which will amply compensate us for the anxieties incident upon the conduct of a high-class monthly magazine."

\* \* \* \*

It is a source of satisfaction to us to know that our efforts to draw attention to the questionable methods of conducting business—as evinced by facts that were constantly being brought to our notice—which appeared to prevail among a section of the dealers in photographic commodities have already done good, also that our endeavours to promote the best interests of amateur photographers have been cordially appreciated by our subscribers in general; and we take this opportunity of thanking the numerous readers who have taken the trouble to write us private letters on the subject.

Certain letters, however, that have been sent us for publication in our pages have led to a slight misunderstanding, or, we should say, have introduced questions which we are informed have tended to confuse the real issues. Now, for two reasons this is to be regretted, one being the fact that we may be considered as doing someone an injustice; the other, that it weakens the cause we have at heart by the stream of comment having shown a tendency to flow past the main points into channels in which photographers in general have but small interest. Our correspondence columns are open at all times to the ventilation of grievances, or for the discussion of matters of importance to our *clientèle*, but it does not necessarily follow that the subjects brought forward in this way at the same time have any relevancy one to the other in consequence, and we must confess we are surprised to find it necessary to draw attention to so obvious a fact. For instance, it is inexplicable to us how any confusion can arise respecting the broad distinction existing between a correspondence concerning a lens employed in a certain make of camera, or the differences of opinion expressed regarding its original cost, and the other subject to which we gave prominence. In justice to the firm who manufacture the Kodak camera, it is only fair for us to repudiate any such connection. This we are bound to do, for they most certainly were never even thought of when our article was written, for the simple reason that we had not received any complaints from our correspondents in which actions such as those we were interested in deprecating had been attributed to the firm. In fact, it is only right to say that their high standing and honesty of dealing have been in constant evidence. The correspondence regarding the Kodak stands by itself. The price of the article, or the nature of its lens, provided that it fulfils the conditions under which it is sold, can have nothing whatever to do with a crusade inaugurated against methods of business which are of a questionable nature. To ventilate this subject was the sole object of our remarks, and we may further say that we intend to do our best in every way to eradicate objectionable systems of trading from photographic circles, or, at any rate, to assist our readers to discriminate between fair and unfair dealing, and to support them in obtaining rights to which they are justly entitled.

The optical nature of any lens is a fair subject for dis-



cussion, and it might reasonably be thought that the question is one that is not open to misconstruction. Regarding the points that have arisen, we do not feel that they in any way materially concern us; a special hand-camera, however, having been the subject of a discussion, we will venture to utilise it in a practical manner by making it exemplify one feature of the argument we are endeavouring to maintain. It has to be conceded that the amateur photographer is to a great extent at the mercy of the dealers in the appliances he requires, and that absolute reliance must be placed by the purchaser of certain articles upon the statements made by the seller regarding the quality and efficiency of appliances that cannot receive much preliminary testing before being utilised. Now, the value of a camera of any make to a purchaser is a matter that only concerns the parties interested, and rests on individual requirements; on this subject, therefore, we have nothing to say. But the way in which each Kodak is sold has some features about it which we should very much like to see of more extended application among photographic traders. Every Kodak is bound and sealed, so that a customer knows, when he purchases the article, if the seal is unbroken, that it has not been tampered with, but is in a condition ready for immediate employment, and, moreover, he has the assurance that it has been thoroughly tested before being sealed. Now, if every manufacturer of similar articles adopted this or any method of doing business wherein a trustworthy guarantee of absolute efficiency in all respects could be relied upon, the greater portion of the complaints now rife among amateur photographers would cease to exist, and a spirit of confidence be established which, in the end, would benefit all concerned.

We further state unhesitatingly that each packet of sensitive material, whether plates, films, or printing paper, should have the name of the maker and the date of its make printed on the outside label and also on a ticket placed inside the packet, so that fraud could be detected. It does not redound to the credit of manufacturers who neglect these precautions, for dealers to pass on to their customers old plates or paper that have been kept in stock long enough to suffer deterioration or that have been acquired at an auction of damaged materials, and, by stating they are perfectly fresh from the factory, throw the blame of the defects that are destined to become only too prominent on to the maker. Those who value their reputation above the mere temporary advantages to be gained by playing into the hands of small traders, whose sale is precarious, or who wish to pose as manufacturers themselves by sticking their names on to goods which only pass through their hands in the capacity of a medium between the real manufacturers and the public, should take care to safeguard their interests. If, however, no such ambition exists, then it is only right for journals interested in photography to caution their readers against such articles, for reasons which a moment's consideration can supply.

The price of the various photographic appliances opens up another question. This is very much determined by the laws governing the supply and demand, as in other businesses. A cheap thing may be the dearest that can be purchased, and an expensive one the cheapest. The matter resolves itself into a question of real value. If the most expensive apparatus has patent royalties to pay, is made of the very best materials, of seasoned wood, and well-turned metal, and is put together by experienced workmen of renowned skill, then the article is probably better value for the money than one whose outward appearance is its most attractive feature, and in consequence the one upon whose aid the manufacturers have to rely to effect a sale. A fair return for one's outlay is all that can be expected, and as cheapness means in many instances a scamping of workmanship, or a

utilising of defective material, we are not sure that the best interests of photographers are served by extending the cry for cheapness below that point which competition itself can fairly establish. Our plea is that photographic dealers should supply reliable goods, and that their purchasers should have some guarantee that they are getting a fair return for their outlay. This is not universally a feature of the trade at present; but by drawing attention to certain methods of business to which we have referred, we may in the end accomplish our object.

\* \* \* \*

### THE FRENCH GALLERY.

It will not be denied that a study, when occasion offers, of the contemporary artists of other countries is valuable and instructive, and the reader will find a delightful little collection of the works of some prominent Continental artists on view at the French Gallery, 120, Pall Mall. Most worthy of study are the pictures of Fritz v. Uhde and Max Liebermann. Both these German artists, the one a Saxon and the other a Prussian, belong avowedly to the Naturalistic School, being of the number of those who are content to cast aside the traditions and conventionalities of art, and to go straight to nature for their inspiration. Fritz v. Uhde's first successful attempts were in domestic genre and in studies of outdoor peasant life. Nos. 69 and 72 illustrate this phase of his work, and recall the style of the modern French impressionists; but it was not with such pictures as these that he was to make his reputation; the devoutly religious bent of his mind led him to paint sacred subjects, and his conviction that the true mission of art is to interpret nature caused him to portray the personalities of his sacred pictures as German peasants of to-day. One of the best examples of this style is No. 61, "The Last Supper;" the varied emotions expressed in the faces of the disciples as they sit around the rough trestle-supported table is admirable, and the whole conception of the translation of the Gospel story into the every-day life of the nineteenth century as manifested in this picture, and in the artist's "Suffer Little Children to Come unto Me," "Come, Lord Jesus, be Thou our Guest," and the "Sermon on the Mount," together with the triptych of the Nativity (No. 76), seems to teach a great lesson and point to a Divine truth, so that, notwithstanding the adverse criticism these pictures have met with, we may be sure that if the mission of art is to be something more than merely to satisfy an æsthetic taste for grace of modelling and harmony of colour, the justification of Fritz v. Uhde's pictures is to be found in the fact that the gazer is made to think of what they mean and of what they teach. Max Liebermann has much of sympathy with his Saxon confrère. His strong individuality is well illustrated in No. 47, "Plucking Geese," and his creed is summed up in his own words, which we, as photographers, will do well to lay to heart. He says, "I rest my hopes for the future of my own branch of art on a reverent yet intimate communion with nature. My aim has been not to seek out the picturesque in nature, but to understand the pictorial qualities that underlie nature as a whole—to choose the difficult path of simplicity in rendering her greatness, and to show her stripped of all tinsel and frippery, of all the echoes from the theatre and the studio."

Of the other pictures in this gallery, notice No. 12; No. 29, an exceedingly clever work by Professor Seiler; No. 34, Munkacsy's "Two Families,"—there is a curious imperfection in the painting of the hands, and the dresses and properties are too sumptuous; also Nos. 44, 49, and the striking composition No. 92. To photographers fond of "subject" studies this exhibition should prove interesting. There is, however, very little landscape.



## Letters to the Editor.

### SILVER PRINTING—A NEW METHOD.

SIR,—Your editorial a week or two ago encourages me to offer few remarks respecting the process you referred to, inasmuch as it offers facilities for securing the most pleasing and satisfactory results on silver paper that it is possible to obtain. When printing from very weak negatives we frequently find it necessary to employ some kind of medium for placing between the light and the negative, and even with this precaution the results are very frequently far from satisfactory, and we get nothing but a weak, flat, and necessarily badly toned print. It had often occurred to me that if it were possible to get a good tone in a print from such negatives what a blessing it would be to some of us who possess many pretty-looking negatives, but which (do all we can) have never yielded a passable print. "Too weak for silver printing," is being constantly muttered by the persevering amateur, when he finds, on taking his plate from the fixing bath, that the image has almost vanished. He tries intensification (a process I should never recommend, for many reasons), when perhaps his valued negative is irretrievably ruined with a yellow stain, or it becomes so dense that nothing other than a hard, chalky print is the outcome of the printing frame. How I sympathise with the professional printer, into whose hands come all classes of negatives, and who is often expected to supply good prints from negatives that are not deserving of the name, and although he may be master of all the "fakes" imaginable, yet a good silver print from such a negative has hitherto been out of the question. The public taste appears to cling to the albumenised paper print, and many are the formulæ for toning baths that have been published and tried, but to no purpose. So we have passed over our valued though weak negatives as no use for silver printing, and taken a "bromide," and have had to rest contented.

From experiments I have made recently, I feel convinced matters will not remain thus, and I can confidently assure my readers that if they adopt the method I desire to explain, and carry out the instructions I give, they will be rewarded with the most happy results, and failures need not be thought of.

I am sending you a few prints for your inspection, and they must speak for themselves, for I am confident the same result cannot be obtained by any other process where gold toning is employed.

The result is solely due to printing through *green glass*. I have tried almost every shade of colour, but nothing gives me better results than green, so I will simply refer you to the specimens sent, from which you will form some idea of the effect of the light through the various colours.

I do not attempt to claim this discovery as my own. I have simply experimented with the process, after having been shown some specimens by Mr. Otto Scholz, to whom I am indebted for having given me the hint in the matter. It is really astonishing to note the remarkable effect that may be obtained even before toning. The paper prints a fine purple colour, and anyone acquainted with silver printing is aware that with this shade of colour in an untuned print, the after-manipulation invariably gives better results than when printed in the ordinary manner.

In my experiments I have confined myself to the use of Schölzig's matt and albumenised paper, although there is no doubt similar results may be obtained on other brands of paper. I have found the process most useful also when using the chloride papers (Obernetter and Aristotype). I have also proved it beneficial for contact printing on bromide paper, and also when making transparencies for enlarged negatives the green glass is most useful in enabling me to obtain splendid plates for making my enlargements from.

The chief point to which I would especially draw attention in connection with this process is to *print deep*. This will apply to both matt-surface and albumenised papers. An under-printed proof will rarely give as good a black as one that has been printed deep. Of course, as one may imagine, the time occupied in printing is prolonged, but this should be no drawback. I invariably print in full sunlight, and do not find that when printed in the shade the results are more satisfactory, and the time is much prolonged.

I have experimented with innumerable toning baths for this process, but the one that gives me the best results, so far as *pure black* tones are concerned, is as follows:—

Borax .. .. .	1½ drms.
Nitrate uranium .. .. .	4 grs.
Gold .. .. .	3 or 4 grs.
Water .. .. .	24 ozs.

With this bath, and with due care in printing, a pure black may be obtained which can scarcely be told from a platinotype print. I would particularly call your attention, Mr. Editor, to some of the prints of Netley Abbey on the matt papers. There is no doubt that the effect is due solely to the use of the green glass. Other toning baths, where tungstate and phosphate form part of the formula, give splendid tones; but in my hands the formula I mention gives me the most satisfactory results, and may be used over and over again if gold is added.

The matt paper requires merely a rinse in water before toning, and tones very quickly. On the other hand, I find the albumenised paper requires well washing before toning, and takes much longer to tone.

If a fine grey tone is wanted, it will not be necessary to print so deep, and any desired tone may be obtained, from brown to black, according to fancy. One of the chief advantages in the process is that we are enabled to obtain a good print from negatives that are too weak for printing by the ordinary method.

It is true that I have placed prints in strong nitric acid solution for several hours, and removed them without even washing, and they remain as good to-day as they did some weeks ago.

I shall be pleased to acquaint your readers with the result of my future experiments in this direction, or assist them with my experience if desired. One thing is certain, Mr. Editor. Green glass will henceforth be looked upon as a most essential part of my apparatus.—Yours truly,

EDWD. A. GOLLEDGE.

Ilford, July 19th, 1890.

\* \* \* \*

### SENSITIVENESS OF PLATES.

SIR,—Some letters have recently appeared in your columns with reference to an instrument designed by Messrs. Hurter and Driffield, which is intended to provide a means of determining the comparative rapidities of dry plates. I have not seen the instrument, or even a description of it, and cannot, therefore, pretend to be in a position to pronounce an opinion on its merits; [but I should like to point out that any system of comparison which takes the wet collodion plate as a standard must inevitably be misleading and unreliable. The rapidity of wet collodion is not a constant quantity; it varies considerably according to circumstances and conditions, almost as widely as the rapidity of gelatino-bromide plates, and to express the rapidity of a gelatine plate in terms of wet collodion is nearly as absurd as to use the expressions "as long as a piece of string," and as "large as a lump of chalk," as scientific measures of length and capacity. The statement that a certain film is 314 times as rapid as a wet plate may possibly be true of the particular wet plate prepared and used by the experimenters under conditions of which I know nothing, but if the experiment were repeated under different conditions of collodion, bath, developer, temperature, and subject, the result would inevitably vary very widely from that arrived at previously.]

Supposing we find by actual experiment that a given gelatine plate requires an exposure of 2 secs. on a certain subject, say a well-lighted landscape, and that, under exactly similar conditions of lens, stop, light, etc., a wet plate requires 20 secs, are we to assume that the relative exposures of the gelatine plate and the wet collodion will always be as one to ten? I think most experienced wet-plate workers will bear me out in saying that with a subject of a different class, say the interior of a church, not too well lighted, these figures will be very considerably modified; in other words, the data we obtained by our trial exposure on the landscape are only misleading when calculating the exposure required for a subject of a totally different character.

Again, Captain Abney, in his book "Instruction in Photography" (pp. 39 to 51, 1886 edition), gives two formulæ for collodion, seven for iodizers, one for pyrogallol developer, and no less than ten for iron developer, while on p. 86 of the same volume will be found a totally new set of formulæ for collodion bath, and two iron and one pyrogallol developers for very rapid exposures.

Which of these is the standard "wet-collodion plate"? Will the results be invariable for all subjects whichever collodion, bath, and developer we select for our experiment? If so, we must assume that the author has taken the trouble to give us all these



formulæ, when any one of each would have been sufficient; and then how about the special set of formulæ for rapid work on p. 86?

Now let me put the case another way. I was using last year for negative work certain plates which had purposely been made very slow. They required a long exposure, but the resulting negatives were excellent. I can very easily make a wet-collodion plate which will, under certain circumstances, require only one half the exposure of these slow gelatine plates. If I say, then, that my wet-collodion plates are twice the rapidity of a gelatine plate, the statement will be literally true, but worse than useless as a guide to others, or for a test of comparative rapidity.

I sincerely hope that Messrs. Hurter and Driffield will not think that this letter is intended to disparage either their invention or their well-meant endeavours to settle the question of comparative rapidity. On the contrary, I am quite prepared to find their instrument all they claim it to be, but before it can be of any practical value to photographers some more constant quantity than the rapidity of a wet-collodion plate must be taken as the basis of calculation and expression.

#### "F.G.S." AND THE CONVENTION.

Now, a word on another matter. It is surely necessary that a vigorous protest should be raised against the growing practice of attacking people by name in the photographic Press, while the attacking party shields himself under anonymity; as an instance, Mr. Pringle is thus attacked in your issue of July 18th in two places, by "F. G. S." and "One of 'Hoi Polloi.'" I shall not be guilty of the impertinence of defending Mr. Pringle from his anonymous critics, as, if there is anyone particularly capable of taking care of himself and his opinions, Andrew Pringle is the man; but I would strongly recommend "F. G. S." and "One of 'Hoi Polloi'" to read a letter, in which anonymity is condemned, in the *Photographic News* of June 7th, 1889, vol. xxxiii., pp. 381 and 382. I would not go so far as the able writer of that letter does, and call an anonymous attacker a "cur without a name," but content myself by expressing a strong hope that any contributor to your valuable paper, who is burning to attack another contributor, will have the courage of his opinions, and sign his name like a man to his communications.—Yours faithfully,  
London, July 22nd, 1890. CHAS. HUSSEY.

\* \* \* \*

#### DEVELOPMENT.

SIR,—On reading Mr. Wilkinson's letter on the above subject, I thought I had, at last, a formula for eikonogen which would suit the plate I am using. I find, however, that such is not the case, and I should be glad if this gentleman, or any one else, would assist me. My trouble is that of holes in the film after washing or fixing. These holes are not pinholes, but pieces of film torn up, caused evidently by too strong a developer, or a soft film, or both. I have tried many formulæ, including one of my own, which is almost identical with the one given by your correspondent Mr. Wilkinson; the results are unfortunately the same whichever is used. Without exception, the exposures have been made with hand-camera, and although some have been as late as 7 p.m. in dull light, I have always obtained full detail, and by adding 1 drm. of hydroquinone (Thomas's) I can get any amount of density in a very short time. But what is the use of all this when, on fixing, the plates are useless, and it is getting too late in the season to waste many more, seeing that I am a snapshotist?

The plates I use are Paget's XXX.; perhaps someone can recommend a plate with harder film, about the same rapidity and price.—Yours, etc.,  
July 27th, 1890. SNAP-SHOOTIST.

\* \* \* \*

#### PACKING DRY PLATES.

SIR,—The correspondence on this subject has so far produced an expression of very opposite opinions. Our object, however, is not to contradict each other, merely because our experiences happen to have differed, but to arrive, if possible, at some satisfactory conclusion which will prove a real benefit to every photographic tourist who does not develop *en voyage*. The matter is surely too important to be relegated to the "unsolved." Can we not induce our leading tourist-photographers to give us their experiences? The opinions, too, of chemists and the manufacturers of dry plates would be useful. Mr. Venn's letter only proves that the paper he used was not suitable for the purpose,

it was not chemically harmless. Colonel Verney's letter only proves the same thing. The obvious caution from such experiences is—see that the paper is harmless. But do these gentlemen believe that the tissue paper placed between Thomas's plates or Ilford's (for instance) is injurious to the film? If so, how is it that we hear no complaint of the kind, though many thousands of these plates are being used? I can conceive that Mr. Venn's method of packing plates film to back might be a safe one if the backs of plates were always perfectly clean; but being, as we all know, usually splashed with the emulsion, I should fear that such uneven surfaces would be liable to cause a rubbing of the film, even more dangerous than that which I described in my former letter as resulting from the "face to face" method. And, therefore, until I learn some better plan, I intend to follow the example set by the plate-makers, agreeing with Mr. Gottlieb that we amateurs can hardly teach those who must have made the matter a special study.—I am, etc.,

WILLIAM MANN, M.A., S.C.L.

July 26th, 1890.

P.S.—It is worthy of note that on the page following Mr. Venn's letter, the very paper we want is said to be on the market. But I would suggest to the manufacturers to send samples for analysis to reliable chemists, and to obtain certificates from them (which they might advertise) that it contains nothing which can injure the film. It might then have a large sale.

\* \* \* \*

#### HYDROQUINONE AND SODIUM HYDRATE.

SIR,—With regard to development with hydroquinone and sodium hydrate, I have been able to get very good results with Thomas's formula, especially in cases of under-exposure. One case in particular rather astonished me. The subject was a pony and trap with occupants, about 6 p.m. in the summer, but it was very dull, and I was almost giving it up as useless, but finally exposed two plates with the cap off and on as quickly as possible, as the animal would not give me a longer chance. I quite expected that I had wasted two plates, but to my astonishment they both developed quickly and turned out good negatives. For portraiture I have used the above slightly diluted, and got very nice soft negatives.

For ordinary exposure this developer is far too strong—about one-third or one-half the strength does much better—and care should be taken as to the amount of bromide used. Some plates will do better with less than the amount given. If too much is used, patchiness is the result.

I fancy the reason the makers prefer the hydrate is on account of the rapidity with which it will develop a very much under-exposed plate, giving both density and detail as in the case above. I prefer using carbonate of soda, with a little hydrate if necessary, it being most under control, and not so liable to fog a landscape from the sky downwards, as is the case with the hydrate alone.

The formula I use is:—

A.					
Hydroquinone	..	..	..	..	160 grs.
Sulphite of soda	..	..	..	..	2 ozs.
Citric acid	..	..	..	..	60 grs.
Water	..	..	..	..	to 20 ozs.
B.					
Sodium carbonate (pure)	..	..	..	..	4 ozs.
Water	..	..	..	..	to 20 ozs.

Equal parts of each, diluted with as much or more water, and as much 10 per cent. solution of bromide as required.—Yours truly,

July 28th, 1890. A. J. S.

\* \* \* \*

#### FLASHES OF LIGHTNING.

SIR,—Doubtless many of your readers have seen a photograph of a flash of lightning that was taken at Cambridge during the very violent storm of, I believe, August, 1889.

The curious part of the photograph is that a church steeple appearing in it has three distinct images overlapping each other. It would be extremely interesting to know the exact scientific explanation of this phenomenon.

I would suggest that the heat of the flash produced varying strata of refrangibility by rarefying the air, and thus causing the separate images; but even if that be the case, it seems diffi-



cult to understand why there should be separate images, and not one long blur; or possibly three separate flashes produced the effect.

#### COLOUR-PHOTOGRAPHY.

Turning to the subject of colour-photography, I should like to ask a question concerning that admirable chromo-collotype in the current number of the *Photographic Quarterly*. Are the negatives converted into photo-mechanical blocks, and each being coloured with a separate pigment, stamped on the paper in succession?—I am, yours, etc.,

R. F. LE BAILLY.

July 27th, 1890.

[NOTE.—The negatives are printed off direct, no block being made. There were three negatives and three printings needed to turn out the perfect chromo-collotype.—ED: AM: PHOT

\* \* \* \*

#### "F. G. S." AND MR. PRINGLE.

SIR,—In justice to "F. G. S." will you allow me to say that Mr. Pringle invited me, in December, 1885, to join the Convention movement; and I declined, having a great hatred of "babble." If Mr. Pringle expresses a wish, in your next number, that the correspondence between us on this matter be published, I will do so. And then it will be seen what a worthless memory Mr. Pringle has. Mr. Pringle might have left out that remark, "If proof is not forthcoming, your readers will know what to think of 'F. G. S.'" He might have assumed that "F. G. S." was a gentleman, and could give proofs of what he said he *knew* to be true.—Yours very truly,

P. H. EMERSON.

10, Marlboro Crescent, Bedford Park,  
Chiswick, July 25th, 1890.

SIR,—In the last number of the *AMATEUR PHOTOGRAPHER*, Mr. Bothamley comes to Mr. Pringle's aid, and the President and Ex-President of the Convention combine to pour three columns of small print on my devoted head. For my own part, I think that enough space has now been taken up by the affairs of this badly-managed and poorly-attended annual picnic party, and I shall not again refer to them. I began by asking a simple question of the Secretary of the Convention, which has not been answered, viz., the exact number of members who have paid their subscriptions for each of the five years during which the Convention has been in existence. My object was to endeavour to find out what kind of support it has received from the tens of thousands of photographers of the British Isles, and to see whether it was justified in appointing Committees to settle important questions. As Mr. Pringle admits that the membership has only averaged a little over one hundred, I contend that the Convention has plainly failed to secure anything like the trust, adhesion, or confidence of photographers generally, and that it has no right to speak in their name, or to legislate for them.

In reply to Mr. Pringle, I *do know* that Dr. Emerson refused a special invitation to join the Convention; and my authority is Dr. Emerson himself.

Further, as Mr. Bothamley accuses me of "impertinence" (how these lords of the Convention employ the personalities—"conventionalisms," perhaps they call them—which they deprecate in others), I may tell him that my ideas are exactly those held by most people, including the object of Mr. Newman's attack. Messrs. Pringle and Bothamley, it will be noticed, both entirely evade the main question, which is, "Is the Convention a success; and, if not, why not?" Instead of dealing plainly with the subject, they follow the old legal advice, "No case? Then abuse the plaintiff's attorney!"—Yours, etc.,

F. G. S.

\* \* \* \*

#### LIGHT IN DARK-ROOMS.

SIR,—With reference to light in dark-rooms, can the quality of the safe light be affected by the colour on surface on the walls, e.g., if the walls were white and varnished, as is the case in a ship's cabin?—Yours, etc.,

E. F. BECHER.

July 26th, 1890.

\* \* \* \*

#### LUMIERE PLATES.

SIR,—For the last week or so I have been using Lumière plates for hand-camera work, and when they are good have got

most perfect negatives with them, but out of seven dozen quarter plates, two dozen have been spoilt by fog. I am sure they were not fogged during use, for this reason: I took as a test four plates from one box and four plates from another, and exposed them the same day, and developed them at the same time, so that the eight plates were used under exactly the same conditions, and the result is that four of the plates from one box are perfect negatives, while the four from the other are fogged right out to the edges. The number of the batch is 2,664.—Yours, etc.,

JOHN STABB.

July 28th, 1890.

## The Electric Light and Photo-graphy.—VII.

By T. C. HEPWORTH, F.C.S.

(Continued from page 29.)

WHEN the electric light is brought within easy reach by our houses and public halls being "wired," it will in the natural course of things be used for lantern projection, but only because it will be more convenient than the lime-light; not because it is better. The lime-light has, indeed, of late years been brought to such a pitch of perfection, and the best lenses, as now made, render so much of its light available, that it leaves little to be desired. Even the old complaint of bulk of apparatus can no longer be laid to its charge, now that the compressed-gas system has come into vogue. But perhaps these will be considered *de trop* when a couple of wires passed into the lantern from the house supply will afford the required amount of light.

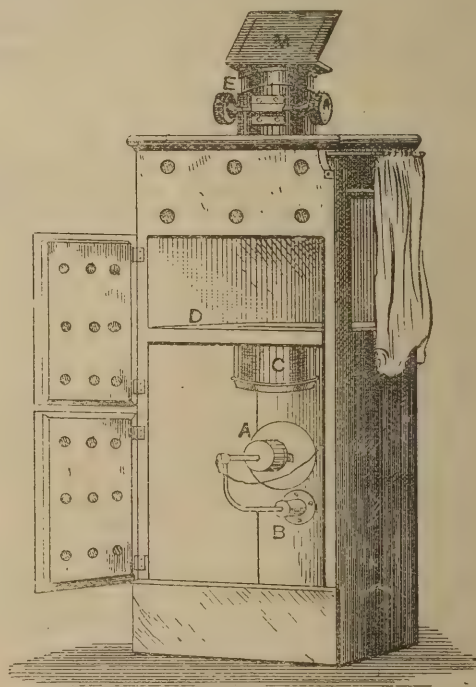


FIG. 1.

The application of the electric light to projecting purposes is by no means a new idea, and a glance at any old text-book will show how the Duboseq arc light regulator was applied to this purpose more than thirty years back in connection with that extremely rough optical instrument which was known as the Solar Microscope. For nearly as long a time the electric lamp of Serrin, and a regulator known as Browning's have been used for throwing spectrum



phenomena on a screen. But such experiments were seldom shown, for the trouble, expense, and mess of a forty or fifty cell battery were not to be lightly undertaken except by enthusiasts. An electrically lit microscope was shown at the Crystal Palace some few years back, and for a long time a lantern for ordinary lecture purposes has been in use at the large theatre of the Society of Arts in the Adelphi. This lantern gives a brilliant light, and seems to work steadily, but wants attention to keep the light spot central. It is fed by a De Meritens dynamo machine, and the regulator used is that of Siemens.

A novel and useful form of electrically lit lantern has been designed by Dr. Fleming, and is in constant use by him for class instruction at University College. The incandescent form of lamp is employed in this lantern, and as the size of the glass bulb for containing the white-hot carbon filament is inconveniently large if more than 100 candle power is required, it is obvious that this form of lantern is limited to places where only a small-sized disc is wanted. Dr. Fleming illuminates a screen of about seven feet with a 50 candle-power lamp, and he has light enough to give a disc of twelve feet. The lantern is shown in fig. 1, which is merely diagrammatic in character, and gives only the main features of the apparatus.

It consists of a well-ventilated oblong box about two feet high and ten inches square. The glow lamp A is fitted on an arm, B, which projects from the further side of the interior wall, so that the lamp is really on its side. But in the case of glow lamps position is quite immaterial. The lamp is held in its support by adjusting screws, not shown in the figure, so that it can be centred to a nicety. The silken cable from it passes to the outside of the box for ready connection with the source of electrical energy.

The lamp itself is of special construction, and has been made by the Edison and Swan Company for the purpose of lantern projection; it is shown separately at fig. 2. Apart from its great power, it differs from an ordinary glow lamp in the arrangement of its carbon filament. Instead of an elongated loop of radiance, the light is concentrated in a helix, which approaches far more nearly the theoretical point of light which is best for all optical instruments of this kind.

Referring once more to fig. 1, we note that a few inches above the lamp bulb is fixed the condensing lens C, on a shelf D. A curtain-covered opening gives ready access to the upper side of the shelf, on a level with which is the

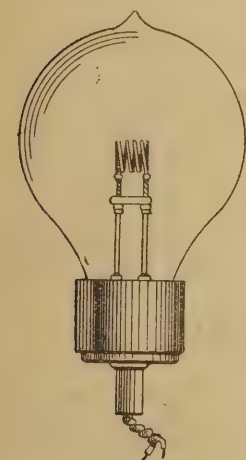


FIG. 2.

top surface of the condensing lens. Here is fitted a slide carrier, so that pictures can be readily exhibited, but the carrier is removable, so that experiments or preparations may be shown when desired. The image is formed by the objective lens E on the summit of the lantern, and the vertical rays are turned in a horizontal direction towards the lantern screen by the mirror M, which rests upon a collar which fits over the lens mount. A great many experiments, it may be mentioned, can be shown with a lantern, provided that there is a means for keeping the objects shown in a horizontal position, as is possible with the arrangement shown. As a case in point, may be instanced the well-known experiment of showing curves of magnetic force by sprinkling the poles of a magnet with iron filings, where the magnet must rest on a flat surface. Various experiments with liquids

are also best shown by means of a horizontal stage, and this lantern of Dr. Fleming's has adjusting screws, so that for such experiments it can be accurately levelled. The instrument is made by Mr. Steward, of the Strand, who will doubtless find a great demand for it so soon as electricity is brought into our houses as gas is now supplied.

That this is a consummation devoutly to be wished is evidenced by the rapid strides which the art of electrical illumination has taken of late years, an advance which is due to the wonderful development of the dynamo machine. When Faraday first pointed out at his lecture table that an electric current was obtainable by moving a coil of wire in front of a magnet, he made one of the most important discoveries which this century has seen, and one which has gradually brought into view the possibility of general electrical illumination. We seem to be rather backward in the matter in this country, and it has been spoken of as a reproach to us that the Americans have gone so much farther ahead. Legislation, with a view to prevent the creation of such monopolies as the gas and water companies represent, has had the effect of checking enterprise in this country, but we shall gain in the end by the delay. The Americans have not only shown us what can be done in the way of supplying a current from a central station, but they have also taught us what to avoid, and we cannot but profit by their experience. The trial of all kinds of systems and different apparatus is bound to end in the survival of the fittest, and while our cousins have had to pay for finding out which is the fittest, we can begin where they leave off.

(To be continued.)

## The Sensitiveness of Photographic Plates.\*

By W. A. WATTS.

(Continued from page 69.)

INVESTIGATING the effects of increasing exposures upon the density, it was found that every time the exposure was doubled, the density increased, at first slowly, then considerably, and from 40 C. M. S. up to 1,280 C. M. S. every time the exposure was doubled, an equal addition to density resulted, on an average the increment being 0.266, whereas after 1,280 C. M. S. further doubling produced less and less increase in density.

Diagrams are given showing graphically the results so attained by increasing the exposures, the most striking one of which we reproduce (fig. 2), in which the densities are ordinates and the abscissæ represent, not the exposures, but the logarithms of the exposures; in such a diagram, whenever the increase of densities follows the regular law, the portion of the curve representing that interval will be nearly a straight line, called the period of "correct representation."

Looking at this curve, it will be seen that it may be divided into four periods: the first proceeds from exposure 1 in an almost horizontal direction, and ascends slowly to exposure 16; this is the period of "under-exposure." During the second period it ascends in an almost straight line to 2,048; this is the period of "correct representation." It is then strongly bent as far as its maximum; this is the period of "over-exposure;" and the last portion is the "period of reversal." The characteristic of the period of "under-exposure" is that "the amount of silver reduced is directly proportional to the exposure." This is most easily seen with

\* "A Photo-chemical Investigation and a New Method of Determining the Sensitiveness of Photographic Plates," by Ferdinand Hurter, Ph.D., and V. C. Driffeld.



very slow plates, *e.g.*, with a plate made by Messrs. Hurter and Driffield with pure bromide of silver, exposure 20 C. M. S. gave density .125; 160 C. M. S. gave 1.055 or ratio 1 : 8.4, being nearly 1 : 8. Again, with a "United Kingdom" plate, 2.5 C. M. S. gave 0.160, 5.0 C. M. S. gave 0.313 or 1 : 1.95.

In the second period of "correct representation" the characteristic is that "the densities are proportional to the logarithms of the exposures." In the period of "over-exposure" the curve shows that shadows and high lights are represented by densities which are almost equal, and there will be no contrasts; and in the fourth, "period of reversal," the high lights become less dense the more the exposure increases, and the shadows exceed them in density.

The authors proceed to endeavour to find a mathematical formula connecting the densities with the exposures. To explain how this is arrived at requires the Integral Calculus,

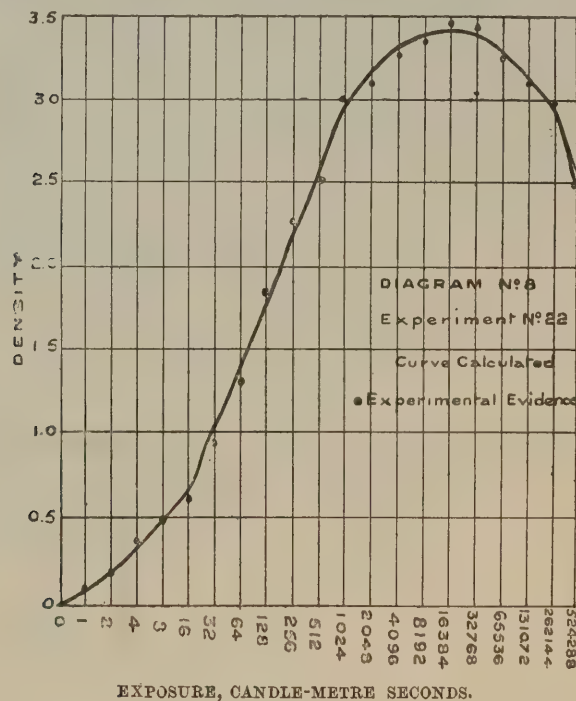


FIG. 2.

but it may be stated for those who are interested in mathematics that the final conclusion is that—

$$D = \gamma \log_e [O - (O - 1)\beta^{k(1-a)} \frac{I t}{e}]$$

in which  $D$  = Density,  $O$  = Opacity,  $\beta$  is a fraction whose hyperbolic logarithm is  $-\frac{1}{O}$ ,  $\gamma$  is a constant representing the amount of maximum density obtained by development, and called the "development constant," and  $k$ ,  $a$  and  $e$  represent those physical and chemical properties of silver bromide which constitute its sensitiveness. By expressing this by means of a single symbol, and putting  $i = \frac{e}{k(1-a)}$  the final formula is—

$$D = \gamma \log_e [O - (O - 1)\beta^{\frac{I t}{i}}],$$

in which formula  $I$  represents the intensity of the light,  $t$  the time of exposure in seconds, and  $i$  the inertia of the plate or its resistance to chemical change.

This formula, however, being, as our non-mathematical readers will easily comprehend, too complicated for ready use, an approximate formula is given, which can be easily made use of, and which, as confirmed by experiment, is

sufficiently accurate for all practical purposes, viz.,  $D = \gamma \log \left( \frac{I t}{i} \right)$ , which equation only holds good when the numerical value of  $\frac{I t}{i}$  is greater than 1, and less than the opacity  $O$ .

It has been necessary to indicate how this last formula has been arrived at, because it is by its aid that the authors have been enabled to calculate and express in figures the sensitiveness of a photographic plate. They give the plate two exposures, falling within the period of "correct representation," and develop; then measuring the densities, exclusive of fog, they obtain two equations connecting the two densities  $D$  and  $D_2$  with the known exposures  $E_1$  and  $E_2$ , viz. :—

$$D_1 = \gamma \log \frac{E_1}{i} \text{ and } D_2 = \gamma \log \frac{E_2}{i},$$

and by elimination, obtain

$$\log i = \frac{D_2 \log E_1 - D_1 \log E_2}{D_2 - D_1}$$

$$\text{and } \gamma = \frac{D_2 - D_1}{\log E_2 - \log E_1}$$

A reference to a table of logarithms gives  $i$  expressed in candle-metre seconds, which represents the exposure sufficing to change a particle of silver bromide into a developable condition. The method of operation is to give eight different exposures, say of 2.5, 5, 10, 20, 40, 80, 160, and 320 C. M. S., so as to ensure at least two exposures falling within the period of correct representation, to develop the plate with ferrous oxalate, and after properly washing, fix in a perfectly clean bath of sodium hyposulphite. After washing and drying, the densities are determined by comparison with the fog strip.

As an illustration, is given the series of results obtained from a Manchester slow plate, as follows :—

Exposures, C.M.S.	2.5	5	10	20	40	80	160	
Densities	...	·085	·175	·250	·460	·755	1·016	1·270
Difference	...	·09	·075	·210	·295	·255	·260	

The results of exposures 20 C. M. S. and 160 C. M. S. being chosen; according to the formula,

$$\log i = \frac{1.270 \times \log 20 - 0.460 \times \log 160}{1.270 - 0.460} = 0.787,$$

and from a table of logarithms  $i = 6.12$  candle-metre seconds.

A second experiment, the figures of which are also given, makes the inertia of a Manchester slow plate 5.90 C. M. S., which is very nearly in accordance with the former.

Calculations by logarithms, however, are caviare to the multitude, so fortunately the authors give a diagram of a method of determining the inertia graphically.

The inertias being logarithms, a horizontal scale is scratched on a slate, taken from an ordinary slide rule, repeating the scale four times instead of twice, as in the case of the slide rule. At points 2.5, 5, 10, 20, 40, 80, 160, and 320 of this scale are drawn vertical lines (exposure lines) divided each into twenty equal parts, making the highest density 2.0 and lowest 0. Having measured the densities, they are marked upon the scales of the corresponding exposure lines, and a straight line drawn through those points which appear most accurately to fall within such a line. Where the straight line intersects the inertia scale, the inertia can at once be read off. The following diagram illustrates the determination of the inertia of



Wratten and Wainwright "ordinary" and "instantaneous." It will be noticed that the instantaneous plate shows within the given exposures a portion of the period of "over-exposure," whilst the ordinary shows a portion of the period of under-exposure.

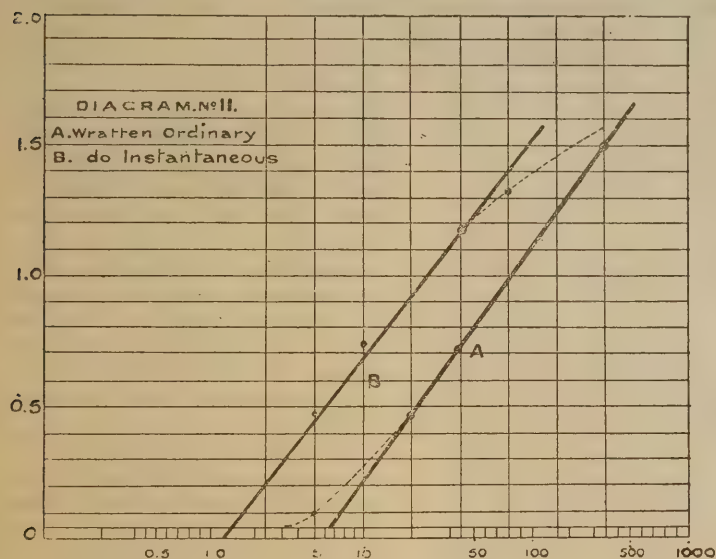


FIG. 3.

It will be seen that the inertia of the "ordinary" is 5.5, and of the "instantaneous" 1.4, and in round numbers the one is four times as fast as the other. Similarly it is shown by diagrams that variations in the mode of development do not influence the determination of the inertia, the straight lines indicating the different methods of development converging to the same point; the same is true of variations in the amount of bromide. Another diagram shows four determinations of the same plate, two with eikonogen, and two with hydroquinone, yet in each case the inertia comes out practically the same. A determination of the inertia of Ilford plates gave 2.0 for "ordinary," 1.4 for "rapid," and 0.56 for "special rapid" (red label).

The "speed" of a plate is inversely proportional to the inertia, and if the "Actinograph" degrees of speed (on the Actinograph a plate is called speed 1 which, with lens  $f/1$  and exposure of 1 second in brightest light on earth, the unit of light, will give a properly graded negative of proper density) are employed, they may be

found by the formula  $S = \frac{34}{i}$ .

Hence the relative speeds of Ilford plates in Actinograph degrees are respectively :

$$\text{Ilford ordinary} \quad S = \frac{34}{2} = 17.$$

$$\text{" rapid} \quad S = \frac{34}{1.4} = 24.$$

$$\text{" special rapid} \quad S = \frac{34}{0.56} = 60.$$

Similarly the Wratten "ordinary" and "instantaneous" are respectively  $\frac{34}{5.5} = 6$ , and  $\frac{34}{1.4} = 24$ , and Manchester slow plates  $\frac{34}{6} = 5\frac{2}{3}$ .

We have always understood that in Actinograph degrees

the speed of a wet-plate may be taken as .5; this would make Ilford plates respectively about 30 times, 50 times, and 120 times; of Wratten and Wainwright 12 times and 50 times, and of "Manchester slow" about 10 times, which accords fairly well with what they are usually taken. We note, however, that Messrs. Hurter and Driffield (AMATEUR PHOTOGRAPHER, July 11th) state that they consider Cramer's Lightning (Actinograph 80) about 395 times, and Anthony's films (Actinograph 63) about 314 times; this estimate, which would give wet plates an Actinograph speed of only .2, seems exaggerated. If wet plates may be taken .5, then Cramer's would be 160 times, and Anthony's films 126 times, which is much more in accordance with probability, though we are subject to correction from Messrs. Hurter and Driffield, who deserve all credit for their very exhaustive and difficult investigation. It may be noted that if wet-plate speed is only .2, then Ilford plates would be respectively 85 times, 120 times, and 300 times, so that the relativeness of Ilford and Anthony's films would be unaltered.

Messrs. Hurter and Driffield state in their paper that Ilford red label are the most rapid plates they have so far investigated, so it is to be presumed their measurement of Cramer's and Anthony's must be the result of later experiments.

However, be that as it may, the conclusion seems to be that there is very little difference, if any, between Anthony's celluloid films and Ilford "red label" plates.

It may interest some of our readers to point out that if Thomas' table, lately published for exposure of their plates, is correct, the Actinograph speed of their plates should be for Landscape 16, Extra Rapid 64, and Cyclist 128.

If any one should like to test Messrs. Hurter and Driffield's results practically, he may do so by observing that the Actinograph gives for  $f/16$  RR, ordinary landscape in July, between 11 a.m. and 1 p.m., mean light (neither very bright nor very dull), rather less than half a second (0.45) with Ilford ordinary, at speed 17; one third of a second (0.33) with rapid at speed 24; and  $\frac{2}{3}$  second (0.15) with special rapid, speed 60. These numbers must be halved for very bright, and doubled for very dull light; about three-fourths for ordinary bright, and half as much again for dull light.

It would be a gain to scientific photography were it one result of Messrs. Hurter and Driffield's paper, that plate makers would test their plates by the instrument described, which is the "balance" of photography, and mark their boxes ( $i = 2.0$ ), ( $i = 1.4$ ), ( $i = .56$ ), as the case may be.

ST. BARTHOLOMEW'S HOSPITAL PHOT. SOC:—On Tuesday, July 22nd, several members of the above Society had a field-day in the grounds and neighbourhood of Hampton Court. They were favoured with splendid weather, and were able to secure some excellent negatives. Both glass and celluloid plates were used. The success of this excursion has induced the members to organise another about the middle of September.

BATH PHOT. SOC:—On the 26th ult., the society met at Prior Park, by invitation of the Rev. Canon Williams, the principal of the college. The grounds are some 200 acres in extent, and present many picturesque subjects for the camera. At 5 p.m. the party assembled under the portico of the mansion, where the worthy Canon heartily welcomed and entertained his fellow-members. After tea more photographs were taken. The swimming bath, Priory, and other points of interest were visited. The sky being clouded and occasional showers falling, the light was too weak for many subjects, but some very good and picturesque photographs were obtained.



## Amateur Photography and Household Decoration.

BY WALTER E. WOODBURY.

WHEN an amateur photographer has succeeded in mastering the hard difficulties that beset him when he takes up with photography as a pastime, it seems to me that he rarely turns the skill thus obtained to any other purpose than to the manufacturing of silver prints, good, bad, and indifferent, and sticking them in a book. This done, he endeavours to create a savage desire to commit murder, in the minds of his friends and acquaintances, by compelling them to look through the book at each visit they make, whilst he explains and discourses at length upon the difficulties and hair-breadth escapes he had encountered with the making of each picture. Now there are so many ways in which good photographs may be utilised for decorating the house and the ornaments it contains that it really appears a pity this art should be so neglected.

To be healthy and happy we must be surrounded by beautiful things. If we cannot have trees, flowers, and beautiful scenery, we can at least have representations of them.

The art of house decoration has spread widely within a few years; many books have been written upon the subject, and for trifling sums now-a-days one may obtain artistic and tasteful ornaments. True, this desire to cultivate beauty is often carried too far. But let us leave those insipid persons calling themselves aesthetes and disciples of naturalism to sit and sigh among blue china, green paper sunflowers, and unsharp pictures, mourning over the present lost century, and yearning for the past, until they (as they probably will do) hail sharp images of pickled sheep's trotters on a crimson ground as a relief. Let us leave them, I repeat, and turn our attention to common-sensism and more engaging pursuits. Good sense is the basis of all that is beautiful, and details of ornament as well as the *ensemble* ought to be the natural results of our habits and tastes.



FIG. 2.

Now, to my mind, there are no pastimes which afford so much pleasure and genuine satisfaction as those which leave permanent records of ingenuity and skill. Every time that we glance at some useful or pretty object, the making of which has employed our leisure hours, the pleasure is revived. We recollect the difficulties we encountered, and the energy with which we vanquished them, and thus gratification and delight are kept ever green. When a friend, too, admires with rapture some ornament or work of art which we have spent weeks

over, with what pardonable pride and self-gratification is the heart filled when we calmly remark, "Oh, I did it myself," in such a manner that will lead the friend to imagine that it was an exceedingly simple task!

But enough of this; let us get to business. My object is to show how many different uses photography may be put to in decorating the house, adding pretty ornaments, or converting some unsightly object into a thing of beauty and a joy for ever.

The first things we want are good negatives. Every amateur should at least be able to pick out a few from his collection which are passable, if only "flukes." But whether they were "flukes" or made upon the "pull-the-trigger-and-we-do-the-rest" system is of no consequence to us, but only to the amateur's conscience; we will only presume that he has them, because it would be useless to endeavour to make pretty photographic ornaments with bad negatives.

The first item we will deal with is transparencies. Every amateur who can make a negative can, I should think, make a transparency, that is a positive on glass. If he can work the carbon process it were well, because this is most suitable; we

can get pictures of all shades and colours, and they are permanent. But if he cannot master this process, and does not care to try, then the positive transparencies may be made with chloride plates, or the transferotype paper of the Eastman Company. I shall not enter into the working of these processes, as they are contained in any modern work, but will only say, do not make use of any results that are not really good, and endeavour to get as nice and as agreeable a colour as possible. Our transparencies made, we will see what can be done with them.

The windows offer a large and attractive field for decoration. When a room is nicely furnished, the blank left by the window is at once felt like a shock to the eye, unless it looks out upon a lovely and pleasing scene. To

relieve this, a framed transparency acts like a charm. Frames for the purpose may be bought at any photographic dealer's, and the glass positive, together with a piece of clean ground glass as a protector of the image and to soften the light, is fixed in it (see fig. 1). It often happens in a house, especially in London, that we get several unsightly windows showing extensive views of tiled roofs, chimney-pots, and stray cats. These are often filled in with coloured glass or transparent paper, rarely, however, with pleasing success, unless it be



FIG. 1.



FIG. 3.



of excellent quality and the colours artistically arranged. But far better than this is the photographic transparency method, and one that is in the hands of every amateur photographer with "gumption." By inserting in each pane



FIG. 4.

a positive transparency, and fixing it in with putty, we get a pleasing effect; the chimney pots disappear without the light being obstructed to any serious extent. A glass door may be similarly treated. There are many

other uses to which these glass positives may be put. My object is to mention a few, and the mention of these will, no doubt, suggest others in the mind of the reader. A hall lamp, for instance, is rarely made so artistic that the removal of the glass panes and the insertion of well-studied photographs on glass will not be an improvement (see fig. 2). Very handsome lamp shades for ordinary lamps may be made. Get a brass-worker to make the framework, and having cut the transparency to required size, insert neatly. There are one or two things to be remembered in making these arrangements where the glass is subjected to heat; and they are, first, the glass must be of good quality, free from air-bubbles; and secondly, it must be cut a trifle smaller than the frame-work into which it is inserted, otherwise the expansion of the glass by the heat will cause it to crack. An illustration of a lamp-shade made in this manner is given in fig. 3. Similarly made shades on a smaller scale are very effective for card-table or reading candles.

Now let us see what can be done with silver prints. Even when mounted on card-board and rolled, they do not form an attractive ornament. If placed in any warm position they soon curl and twist themselves into all shapes.

The most effective way of showing photographs is by cementing them to good-quality glass. Done in this manner they are called opalines (fig. 4). The bevelled glass, complete with back sheet and ring, can be purchased, and all



FIG. 5.

its edges protected with a circular rim, and it formed a tasty and much admired piece of furniture, costing but little.

In trimming or cutting up photographs, we often get spoiled bits that make pretty pictures, but too small for ordinary purposes. Again, too, amateurs get many prints spoiled by stains in parts only. With these it is possible,

with a little ingenuity, to make an exceedingly pretty chess and draught board. Thirty-two pictures all the same size are required. This chess-board may be made in two ways. A piece of stiff canvas can be marked out into sixty-four equal squares, and the photographs trimmed to size and mounted on, as shown in fig. 6. The whole is then varnished several times to give a good protecting coat, and the board stiffened with wood or tough boards. Or the photographs may be attached to a sheet of glass in the manner described for the opalines, and afterwards mounted in a wooden frame or made into a table top. The

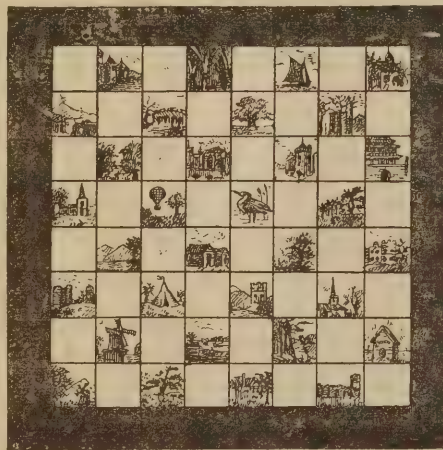


FIG. 6.

glass method is decidedly the best, for the reason that the constant moving of the chess men will soon wear away the varnish and attack the silver print. The glass, however,

affords a strong protection, and prevents the air from attacking the silver prints. Thus, methods of attaching photographs to glass may be employed in many different ways. The writer has seen very pretty household ornaments made thus—tea trays, cigar-ash trays, etc. It may often be employed too for beautifying unsightly objects. For instance, we will quote a case that recently came under the writer's notice. A gentleman friend had a costly mirror over the mantelpiece, and by some accident the silvering left the glass in the centre part and completely destroyed it. He took it down, however, and carefully scraped away all the silvering from the central portion, together with the affected parts, and cut away as it were an oblong square. This

was then backed up with an exceedingly artistic photograph gelatined and squeegeed on. The effect was magical; the defect had been removed, and the mirror much improved in appearance.

Those of my readers who ever paid a visit to Manor House, South Norwood, the former residence of my father, the late W. B. Woodbury, will remember the thousand and one different ways in which photography was employed in the adornment of the house. In one room the wall-paper was entirely covered with photographs, and many of the windows with unsightly outlooks were covered with transparencies. There were also many other adornments made by various photographic processes too difficult for the amateur to attempt. The dusting-on process and photo-sculpture were employed with very pleasing results. But it will perhaps, be better for me to confine myself to the description of those which it is possible for the tyro to accomplish without having the annoyance and inconvenience of learning a new process.

I have not yet shown everything that can be done with



FIG. 7.



FIG. 8.



the plain silver prints. A nice fire or draught screen can be made. Obtain from any retailer of Japanese goods a Japanese screen, the paper of which has been destroyed. These may often be obtained at a trifling cost. Remove the paper, and stretch canvas over in its place. Upon this canvas the prints are arranged, and if neatly and artistically done it forms a screen suitable for any drawing-room.

The introduction of the Eastman transferotype paper should be the means of enabling amateurs to convert many plain household objects into artistic ones by transferring neat photographs to them. A similar process for transferring pictures on to wood was employed by my father with great success. Photographs on wood were used to ornament the doors by inserting in the panels, as shown in fig. 7. To give some idea of the many uses to which photography was put by my father, I will mention that the dining-room chairs were of oak, the design at the top of the backs being as shown in fig. 8. The centres of the ovals had a piece of carved mahogany glued in. These were removed, and portraits of a member of the family inserted in each one, every member being expected to always occupy the chair containing his or her photograph.

I feel that this article is very incomplete, considering the wide extent it embraces, but I hope at some near date to give a few more remarks upon Photography as a Means of Household Decoration.

## Science Notes.

THE last volume of "Memoirs," issued by the Royal Astronomical Society, contains a paper by the late Father Perry on photographs and drawings of the surface of the sun. His great experience in such work at the Stonyhurst Observatory led him to the belief that at least a double series of solar photographs will be desirable—one for the excessively bright parts or *faculae*, and another for the spots proper. It is evident that the same exposure is not suitable for both.

In *Comptes Rendus* the French astronomer, M. Rayet, draws special attention to a photograph of the Ring Nebula in Lyra, which shows a nebulous star almost in the centre of the ring. Other photographs taken at earlier and at later dates show no such star. The inference is that this star is variable in brightness, and M. Rayet intends to photograph the nebula at frequent intervals, in order to settle this question.

Attention is being called in several scientific journals to the Claude Lorraine Black Reflecting Mirror for sketching. This instrument would be very useful to photographers, and I wish some good firm would stock it for our use. I hear that "though extensively used in America and on the Continent, it seems unknown to English dealers." It has a concave surface blackened at the back, and the person using it stands with his back to the scene to be examined, and holds up the mirror in one hand to face the object. I once saw Mr. Kennan, of Dublin, using one, and if he sees this note perhaps he will give us his experience of the instrument.

Those who want to do a big day's work with the hand-camera can scarcely do better than join the London and North-Western "personally-conducted" excursions which now start from Euston at a quarter to nine every Saturday morning for "Shakespeare Land." Stratford-on-Avon, Warwick, Guy's Cliffe, and Kenilworth are visited, and Euston is reached on the return journey at 10.40 p.m. The Company take entire charge of the party, pay all fees, provide carriages, a good dinner, etc., and on very moderate terms. We chanced to meet the first excursionists under this system at Guy's Cliffe last Saturday. Their guide wore the uniform of a ticket-examiner, but he appeared quite up to the usual average of guides. The contents of a one-hundred-film Kodak might well be expended on such a trip; and if the camerist had the pen of a ready writer, the day's doings would furnish material for an amusing article.

The restorations at Stratford-on-Avon church (Holy Trinity, the burial place of Shakespeare) still continue, and "more's the pity." Two new stained-glass windows have just been inserted

in the chancel, and the old choir-stalls have been removed. This building is a national edifice, and any interference with it ought to have the sanction of some national authority. Doubtless the Rev. Geo. Arbuthnot (the Vicar) believes that all that has been done is for the best, but many—very many—disagree entirely with his views on the subject.

F. G. S.

## Our Contemporaries at Home and Abroad.

*American Journal of Photography* gives the following:—"Mr. O. Volkner publishes the following dust carbon printing process, which appears to be easy to carry out, requires no reversed negatives, and yields permanent prints. We also think it can be used in making phototypic printing blocks. Make a solution of gelatine in water 1-60, and draw sheets of good strong paper through it, and hang it up to dry. Wet it again and squeeze it down on a piece of glass. Now brush over it a solution of ten parts gelatine, ten parts gum arabic, twenty parts white sugar, eighty parts distilled water. While still quite moist put it in a dusting box (such as used for photogravure) which contains a mixture of 100 parts of white dry sugar and five parts French lamp-black. After a lapse of eight to ten minutes, withdraw it, and you will find it covered with innumerable particles of dust. Paper thus prepared will keep, and has to be sensitised in a bath of fifty parts bichromate of potassium, fifty parts bichromate of ammonia, six thousand parts water and aqua ammonia, until it assumes a light yellow colour; and at last, to avoid too quick dissolution of the gum arabic, immerse in twenty parts chromic acid in 1,500 alcohol. Print by Vogel's photometer 16 degs. to 18 degs. To develop, use warm water first, and afterwards cold, leaving the print for several hours in water, to which may be added a little aqua ammonia, in case the printing was carried too far. The prints show a singular and very pleasing grain, and need no transferring." Articles: "The Silhouette," "Further Details about Prints," "Orthoscopic Photography," "Amateur Experiences," "A Record in Development," "Gelatinography," etc.

*Wilson's Photographic Magazine* says, "It is not generally known that the best varnish for celluloid films of all kinds is a plain spirituous celluloid solution. This is made of old celluloid film negatives, from which the gelatine coating has been removed. The celluloid is cut into small trimmings and dissolved in common alcohol. This varnish is applied to the film in a cold state, and dried slowly without the application of heat. It flows smoothly and sets evenly, if made of the proper consistence. It has a greater degree of toughness than any resinous varnish, and has the additional advantage of being entirely devoid of 'tackiness.'" Articles: "Photo-Engraving," "New Photo-Lithographic Transfer Paper," "Improvement in the Treatment of Flexible Plates," "Toning Chloride of Silver Prints," "Magnesium," "Enlarging Processes," etc.

CAMBERWELL CAMERA CLUB.—The ordinary meeting was held on the 23rd ult.; Mr. Pike in the chair. Mr. Rice brought up a number of enlargements and photographs, which were much admired. Two new members were elected. It was resolved that at each meeting members should bring up specimens of work done since the previous meeting.

EALING PHOT. SOC.—A meeting was held on the 24th of July for the purpose of deciding on the rules and the election of officers. Mr. H. W. Peal was elected President, and amongst the gentlemen chosen Vice-Presidents was Mr. Common, the well-known astronomer. The subscription was fixed at 10s., and it was decided to hold meetings on the first and third Thursdays in each month, commencing in October next, the place of meeting to be the Public Buildings, where a commodious dark-room would also be obtainable if required. It was announced that twenty-five ladies and gentlemen had already signified their intention of joining the Society, and that this number would no doubt be doubled before the first meeting in October. The Hon. Secretary, Mr. W. T. White, of Clovelly, Ealing, will be glad to receive names of intending members.



# Register of Dark-Rooms, 1890.

## "AMATEUR PHOTOGRAPHER" LIST OF DARK-ROOMS.

WE class them in four divisions, *i.e.*, *a* amateur, *d* dealer or professional, *h* hotel, and *s* photographic society.

In our letter of introduction full particulars are given as to owner, address, charges (if any); plates, chemicals, etc., kept by dealers; terms for temporary membership of societies; hotels; distance from station, etc., etc.

Every application for letter of introduction must be accompanied by SIX PENNY STAMPS. The owner of "Dark-Room" will be advised by same post as the applicant. The envelopes should bear the endorsement DARK-ROOMS.

NOTE.—Upon application information can be supplied respecting dark-rooms on the Continent, and addresses of many firms who stock photographic material.

<i>d</i> Aberdeen	<i>d</i> Croydon	<i>d, s</i> Keighley	<i>h</i> Redcar
<i>d</i> Aberystwith		<i>s</i> Kendal	<i>h</i> Redditch
<i>d</i> Addingham, Yorks.	<i>a</i> Dalton-in-Furness	<i>s</i> Kimberley	<i>d</i> Rhayader
<i>d</i> Amble, Northumberland	<i>d</i> Darlington	<i>d</i> King's Lynn	<i>d</i> Richmond, Surrey
<i>d</i> Andover, Hants	<i>h</i> Dartmouth	<i>a</i> Kingstown, Dublin	<i>a</i> Ringwood, Hants
<i>a</i> Aylesbury, Bucks	<i>d</i> Deal		<i>d</i> Rochdale
	<i>d</i> Derby	<i>d, h</i> Lancaster	<i>a</i> Rodley, near Leeds
<i>d</i> Barmouth, N. Wales	<i>a</i> Devizes	<i>d</i> Larne	<i>d</i> Romford
<i>a</i> Barnsley	<i>h</i> Dingwall, N.B.	<i>d</i> Leamington	<i>d</i> Royston
<i>d</i> Barnstaple	<i>a</i> Doncaster	<i>d</i> Lechlade	<i>d</i> Ryde, Isle of Wight
<i>d, s</i> Bath	<i>a, d, h</i> Douglas, Isle of Man	<i>h</i> Ledbury	<i>h</i> Ryde
<i>h</i> Beaconsfield	<i>d</i> Dover	<i>a, d</i> Leeds	
<i>a</i> Bedford	<i>d, h</i> Dublin	<i>a, d</i> Leicester	<i>a</i> St. Agnes
<i>d, s</i> Belfast	<i>h</i> Dunblane, N.B.	<i>a</i> Lenzie, N.B.	<i>d</i> St. Andrew's, N.B.
<i>s</i> Belfast	<i>d, s</i> Dundee	<i>d</i> Leytonstone, Essex	<i>h</i> St. Asaph
<i>d</i> Belper	<i>a</i> Dungarvan, co. Waterford	<i>d</i> Lincoln	<i>d</i> St. Bees
<i>d</i> Bexhill-on-Sea	<i>a</i> Duns	<i>d, s</i> Liverpool	<i>a</i> St. Helens
<i>d</i> Birchington-on-Sea	<i>d</i> Durham	<i>d</i> Llandudno	<i>d</i> St. Heliers
<i>a, d, s</i> Birmingham		<i>d</i> Llanidloes	<i>a</i> St. Ives
<i>d</i> Blackburn, Lancs.	<i>h</i> Ebbw Vale	<i>d</i> London, Aldersgate, E.C.	<i>d</i> St. Leonards
<i>h</i> Bodiam	<i>d</i> Edinburgh	<i>a</i> Bloomsbury, W.C.	<i>h</i> St. Mellons
<i>d</i> Bodmin	<i>s</i> Egremont	<i>d</i> Borough, S.E.	<i>h</i> St. Neots
<i>h</i> Bonar Bridge	<i>h</i> Ennistymon, co. Clare	<i>a</i> Chelsea, S.W.	<i>d</i> Sandgate
<i>h</i> Boro' Bridge, Yorks.	<i>a</i> Enfield Town	<i>d</i> Fenchurch Street, E.C.	<i>d</i> Sandown, Isle of Wight
<i>d</i> Bournemouth	<i>a, d</i> Evesham	<i>d</i> Fleet Street, E.C.	<i>a, d</i> Scarborough
<i>d</i> Bradford	<i>d</i> Exeter	<i>d</i> Highgate, N.	<i>h</i> Seddlescomb, near Battle
<i>d</i> Bramley, near Leeds		<i>a</i> Kingsland, N.E.	<i>a</i> Shaftesbury
<i>d, h</i> Brechin, N.B.	<i>s</i> Falkirk	<i>d</i> London Bridge, S.E.	<i>d</i> Shanklin, Isle of Wight
<i>h</i> Bridge, near Canterbury	<i>d</i> Falmouth	<i>d</i> New Cross, S.E.	<i>d, s</i> Sheffield
<i>d</i> Bridlington Quay	<i>d</i> Faversham	<i>d</i> Peckham, S.E.	<i>h</i> Shepton Mallet
<i>h</i> Brigg, Yorks.	<i>d</i> Felixstowe	<i>d</i> Walworth Road, S.E.	<i>d</i> Shrewsbury
<i>d</i> Brighton, Hove	<i>h</i> Finchley		<i>h</i> Sleaford
<i>d, h</i> Brighton	<i>h</i> Fochabers, N.B.	<i>a</i> Long Eaton	<i>d, h</i> Southampton
<i>d</i> Bristol	<i>d</i> Folkestone	<i>h</i> Long Melford	<i>h</i> Southend-on-Sea
<i>h</i> Broadway, Worcester	<i>a</i> Four Ashes, near Stourbridge	<i>d</i> Loughborough	<i>a</i> Southport
<i>d</i> Bromley, Kent	<i>a</i> Frodsham	<i>a</i> Louth	<i>a, s</i> Southsea
<i>h</i> Brough, Westmoreland		<i>a</i> Ludlow	<i>d</i> Stamford
<i>s</i> Burnley	<i>a</i> Galashiels, N.B.	<i>d, h</i> Lynmouth	<i>a</i> Steyning
<i>d</i> Burslem	<i>h</i> Giant's Causeway, Ireland	<i>d</i> Lynn	<i>d</i> Stockton-on-Tees
	<i>a, s</i> Glasgow	<i>a</i> Lythe, Whitby	<i>a</i> Stoke-on-Trent
<i>h</i> Cadiz, Spain	<i>d, s</i> Glenalmond, N.B. (nr. Perth)		<i>a</i> Stony Stratford
<i>h</i> Callander, N.B.	<i>d</i> Gloucester	<i>h</i> Macroon, N.B., co. Cork	<i>a, d</i> Stourbridge
<i>h</i> Camborne	<i>d</i> Gorleston	<i>a</i> Madeley, Salop	<i>d, h</i> Stratford-on-Avon
<i>d, h</i> Cambridge	<i>a</i> Goring	<i>d</i> Maidenhead	<i>d</i> Stroud
<i>d</i> Carnarvon	<i>a</i> Gravesend	<i>a</i> Mainz, Germany	<i>h</i> Sudbury, Suffolk
<i>h</i> Capel-Curig, N. Wales	<i>d</i> Great Yarmouth	<i>d</i> Manchester	<i>d</i> Sunderland
<i>a</i> Chalfont St. Peter, Mid.		<i>h</i> Mallow, co. Cork	<i>h</i> Sutton Bridge
<i>d</i> Cheltenham	<i>a</i> Halifax	<i>a</i> Malta	<i>d</i> Swindon
<i>d</i> Chepstow	<i>d</i> Handsworth	<i>d</i> Malvern	
<i>d</i> Chesham	<i>d</i> Hanley	<i>d</i> Mansfield	<i>d</i> Taunton
<i>d</i> Chester	<i>d</i> Harrogate	<i>d</i> Margate	<i>a</i> Tavistock
<i>a</i> Chesterfield	<i>d, h</i> Hastings	<i>h</i> Merthyr Tydfil	<i>a</i> Thornton Dale nr. Pickering
<i>a</i> Chipping Sodbury	<i>s</i> Havant	<i>d</i> Merton	<i>h</i> Thorpe
<i>a</i> Cinderford	<i>d</i> Hereford	<i>d</i> Middlesborough	<i>h</i> Tintern Abbey
<i>d, h</i> Cirencester	<i>d</i> Herne Bay	<i>d</i> Minehead	<i>d</i> Todmorden
<i>d</i> Clacton-on-Sea	<i>d</i> Hexham	<i>h</i> Monmouth	<i>d</i> Torquay
<i>s</i> Cleckheaton	<i>h</i> Holbeach	<i>d</i> Montrose, N.B.	<i>h</i> Tring
<i>d</i> Clevedon	<i>d</i> Huddersfield	<i>a</i> Mountsorrel	<i>d</i> Tunbridge Wells
<i>d</i> Clifton	<i>a, d</i> Hull	<i>a</i> Mumbles, near Swansea	<i>a</i> Tynemouth
<i>a</i> Clitheroe			
<i>d</i> Colchester	<i>d</i> Ilfracombe	<i>d</i> Newark, Notts	<i>s</i> Uttoxeter
<i>h</i> Colnbrook	<i>d, s</i> Ipswich	<i>h</i> Newbury, Berks	<i>a</i> Ventnor
<i>d</i> Colwyn Pay		<i>d</i> Newcastle-on-Tyne	<i>a</i> Vienna
<i>a</i> Coniston	<i>d</i> Jarrow	<i>d</i> Newport (Mon.)	
<i>d, s</i> Crewe	<i>d</i> Jersey	<i>a</i> Newport, Pembroke	<i>h</i> Wadebridge
<i>d</i> Crewkerne		<i>a</i> Niton, Isle of Wight	<i>d</i> Wakefield
		<i>d</i> Norwich	<i>h</i> Warwick
		<i>d</i> Nottingham	<i>a, d</i> Waterford
		<i>a</i> Northallerton	<i>a</i> Wellington, Salop
			<i>d, s</i> West Hartlepool
		<i>a</i> Oban	<i>d</i> Weston-super-Mare
		<i>s</i> Oldham	<i>h</i> Wetwang, York
		<i>a</i> Oxford	<i>d</i> Weymouth
			<i>d</i> Whitby
		<i>h</i> Paignton	<i>d</i> Wimbledon
		<i>h</i> Paisley, N.B.	<i>d, h</i> Windsor and Eton
		<i>d</i> Penrith	<i>d</i> Wisbech
		<i>d</i> Penzance	<i>a</i> Wolverhampton
		<i>d</i> Pershore	<i>a</i> Worcester
		<i>a</i> Perth	<i>d, h</i> Worthing
		<i>a</i> Poole	
		<i>h</i> Port Erin, Isle of Man	<i>a</i> Yarm
		<i>d</i> Preston	<i>d</i> Yeovil
		<i>d</i> Prince's Risboro'	<i>a, d</i> York
			<i>d</i> Youghal
		<i>d</i> Reading	



## DARK-ROOMS ETC., ON THE CONTINENT.

PLATES and photographic material may be obtained at the following towns on the Continent:—

<i>Austria.</i>	
Vienna	Prague (Adolf Fische, Ferdinand Strasse, 23)
Vienna (Oskar Cramer, The Graben)	
<i>Egypt.</i>	
Alexandria	Cairo
<i>France.</i>	
Nice (M. Ferrari, photographer)	Paris (Maison Molteni, Rue Chateau d'Eau, 44)
San Raphael (M. Ferrari, photographer)	Mentone (M. An. Fosse, Rue Partoneux)
Cannes (Buisson, 12, Boulevard de la Croisette)	
<i>Germany.</i>	
Berlin (R. Talbot, Kaiser Wilhelm Strasse, 46)	Dresden (Ernest Kersler, Briest Strasse, 3)
Dresden (C. F. Bernhardt, Palais Gutenberg)	Hanover (S. Federlein, Louisenstrasse, 2)
	*Mainz
<i>Greece.</i>	
Athens (Arthur Hill, Lloyd's Agent)	
<i>Holland and Belgium.</i>	
Amsterdam	Montague aux Herbes
Antwerp (L. Van Neck, Rue Klapdorp, 10)	Potagères
Blankenburgh	Dinant
Brussels (L. Van Neck, Rue)	La Hague
	Liège
	Ostend
<i>Italy.</i>	
San Remo (J. Scotto, Rue Victor Emmanuel, 16)	Corso
Genoa (F. Passadoro, Via Ponte Reale, 242)	Gratz
Rome (J. Juliana, Via Babuino, 147)	Padua
Bologna	Peruggia
	Ravenna
	Spezzia
	Venice
<i>*Malta.</i>	
<i>Norway and Sweden.</i>	
Bergen (J. Peter, Torvet, 16)	Stavanger
Bergen (Messrs. Bennett, the Tourist Office, 18, Porvet)	Stockholm
Christiania (H. Abel, Carl Johans Gade, 45)	Trondhjem
<i>Portugal.</i>	
Lisbon (J. J. Ribeiro, Rue Aurea, 222)	
<i>Russia.</i>	
Astracan	St. Petersburg (T. Jochim and Co., Petite Morskaia, 4)
Charkoff	
Kieff	Samara
Moscow	Saratoff
Poltava	Varsovie
<i>Spain.</i>	
Barcelona (F. Arenas, Plaza Regomi, 5)	*Cadiz
<i>Switzerland.</i>	
Geneva (E. Baud, Rue Verdaine, 11)	Montreux (Mons. E. Frausoli)
Geneva (Philippe J. Cour de Rive, 11)	Montreux (Englemann, Chemist Perritet)
Lansauene (Lansauene Amateur Photographic Society)	Hotel Des Avants nr. Montreux
	Zurich (R. Ganz)

The following hotels also place dark-rooms at the disposal of guests:—

Hotel Bains et Grande des Salines, Bex	Grand Hotel des Bains, directr. M. C. Hiele, Bex, cant. de Vaud
Hotel Beau-Rivage, directr. M. J. Maurer, Interlaken, cant. de Berne	Hotel du Chamossaire, directr. M. H. Amiguet, Chésières, s/Ollon, cant. de Vaud
Hotel d'Angleterre, directr. M. C. Demmer, Davos-Platz, cant. des Grisons	Hotel des Alpes et Grand Hotel, directr. M. Ami Ches-

Towns marked thus come under the AMATEUR PHOTOGRAPHER Register, as the gentlemen residing there are amateurs, to whom an introduction is necessary.

sex, Territet, cant. de Vaud  
Grand Hotel de Vevey, directr. M. E. Michel, Vevey, cant. de Vaud  
Grand Hotel du Lac, directr. J. Tappert, Vevey, cant. de Vaud  
Hotel Pension du Panorama, directr. M. N. Blotnitzki, Vevey, cant. de Vaud

Hotel du Grand Muveran, directr. M. A. Petter Genillard, Villars s/Ollon, cant. de Vaud  
Hotel du Château de Laufen, directr. M. C. Wolter-Witzig, cant. de Zurich  
Hotel Freienhof, directr. M. G.-R. Engemann, Thoune, cant. de Berne

*Turkey.*  
Smyrna.

## Holiday Resorts and Photographic Haunts.

### HOLM ROOK, CUMBERLAND.

By J. F. HAYNES.

AMONG the many readers of the AMATEUR PHOTOGRAPHER there may be some like myself, who get quite enough busy town life every day, and who, when holiday season comes round, would rather go to some quiet out-of-the-way place, where they can take a few "pretty bits," and enjoy a thorough rest as well. To such, the following particulars of a short stay at Holm Rook, Cumberland, may be just what they want. Living in the Midlands, the best way of reaching Holm Rook is to take ticket for Barrow-in-Furness, or, as we did, take a tourist ticket for Isle of Man. We travelled to Barrow, *via* Carnforth. The ride from Carnforth to Barrow, through the Lake district, is very enjoyable, and if the tourist is so minded he can break his journey at the Lakes. We took tickets from Barrow (Central) for Drigg, a station about two miles from Holm Rook. The ride from Barrow to Millom, round the Curve, is rather tiring, but to us, just at Whitsuntide, was more lively, as all the places we passed were *en fête*, and we had glimpses as we went slowly by of the rings fenced out for wrestling, which was quite new to us. By the bye, we don't seem to have seen many snap-shots of wrestling matches. Are there no amateurs in Cumberland? We reached Drigg late in the afternoon, and, fortunately, found a cart going up to Holm Rook. The sun was setting as we caught sight of the distant fells, and after a short ride through the village of Drigg we arrived at the Lutwige Arms Hotel, Holm Rook. After a substantial tea, we sallied forth under the guidance of our host to have a walk through the grounds of Holm Rook Hall, our host telling us that he would have driven down to meet us at Drigg if we had sent him a post-card. Through the village runs the river Irt. "Splendid water; purest in the north," says our host, who has, for lovers of the gentle art, two miles of fishing, salmon and sea trout. Our host, by the way, is a true sportsman; he is keeper to Colonel Lutwige, Holm Rook Hall, and if the tourist wants rabbiting, or fishing or crabbing on Drigg shore, when he is tired of "pretty views," our host is always ready to give his services. After a walk round, we retired to rest, and awoke next morning at 6.30. Seven o'clock saw us out, and before many minutes had elapsed we had taken two or three views down the river, the mist just rising off the hills. The air was fresh, and after a bracing walk toward Irton Church, we returned for breakfast. Afterwards, our host took us past Irton Church, by Irton Hall, across the fells, to Wastwater Lake. Our regret here was that we had not taken our cameras. After a walk up the Lake, we returned by a very pleasant route to Holm Rook. But not to make this paper too long, after a few days' of the bracing mountain air and the sea breezes, for we were only one or two miles from the shore, we were compelled to say good-bye to Holm Rook, and return to Barrow, from which place we took our journey to Douglas, Isle of Man. This is so well known, we shall not say anything about it, but will shortly give a few of the interesting places near Holm Rook. In Holm Rook Hall grounds there are some very pretty bits, which can be visited any time on application to the host of Lutwige Hotel. Wastwater Lake is about seven miles away, and is well worth a few plates. At Wastwater Head, six miles further, is one of the smallest churches in England. Calder Bridge is four miles; the Abbey, five; Ennerdale, fifteen miles; Whitehaven, fifteen miles; Muncaster Castle is two and a half; Gosforth, three; Strands



five; Egermont, nine; St. Bees, nine miles; Eskdale, five. So that if one should get tired of quiet shots, of fishing, or of resting, there are plenty of interesting places, within easy walking or easier riding distance; and if you are so minded to try a few attempts at gulls, our host could, no doubt, get you admission to a splendid Gullery a little distance away. Any particulars as to terms, etc., could be got by a post-card to the host, who would meet any train, or give any help to tourists passing through. It may be as well to say that any one thinking of going to Holm Rook should write first, as there is only one hotel there, and we heard, shortly after we came away, from some of our friends who went, that the hotel was quite full.

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### LITTLEHAMPTON.

By H. MACLEAN, F.G.S.

THERE are not many marine resorts within sixty miles of London where a few weeks may be more profitably spent than the above picturesque little seaport; more especially is it a place where the lover of artistic results may hope to realise some of those dreams of perfectly composed pictures which are, alas! so difficult to get upon the film. It is to artists that the photographic amateur now looks for guidance; that being so, he will be safe in coming to this charming village, for I have met quite a large number of painters at work here during the past month, all of whom were loud in their praises of the abundance and beauty of subjects with which the neighbourhood is endowed. Amongst others, the vivid sketches, characterised by their full colour and refined composition, which Mr. Th. M. Page made during my stay here, and which are destined for the various winter exhibitions, especially pleased me.

To return to photography. Foremost amongst the localities where graphic beauties lurk is the harbour. Here an apt operator can obtain many splendid negatives, providing he has the leisure and patience to wait for the right moment. At low water the wharves and jetties, sandhills, port, windmills, light-houses, and craft, in various combinations, will give several days' work. At high water another series of views are available at this same spot with the addition of the moving shipping, steam-tug, etc., which pass in and out when the haven is full of water.

Outside the town, within walking distance, are several attractive rural scenes, a few of which I indicate. Most interesting of these is Toddington (three-quarters of a mile), groups of cottages and old-fashioned gardens, also a peculiarly noisome looking "silent pool" overhung by weird trees; Rustington, three-quarters of a mile, church and rural subjects; Leominster, one and a half miles, church, etc.; Climping, three-quarters of a mile, church porch, etc.; Paling, three miles, church, lanes, etc.; Angmering, four miles, picturesque village, woods, lake. Beyond easy walking distance are Arundel, five miles. The beauties of the castle, cathedral, park, and lake are too well known to need description. Amberley, ruined castle and old church and village; near by are several river and marsh scenes. Chichester, cathedral, cloisters, market cross, "old-time" houses, etc. Emsworth, also Slindon, are worth visiting.

Brighton, Portsmouth, and the Solent can be easily got at from Littlehampton, but time is more profitably spent in diligently working the immediate neighbourhood, rather than passed in travelling to and from distant towns.

To those who, while seeking for a photographic "happy hunting-ground," have to consider the comfort and pleasure of others who may set little or no value on a place merely because it has picture-making possibilities, I may mention that the bathing is safe, and the sands unsurpassed for firmness and extent (so hard and dry are they in parts that I have frequently played excellent games of tennis on them). There are also tennis lawns for visitors, and a cricket field; besides an extensive common bordering on the sea, where various games are indulged in by the younger generation. In addition to the above forms of exercise there are rowing, sailing, and fishing, both in sea and river; and also some extensive links for golf. Mr. White, photographer, High Street, kindly allowed me to use his dark-room, and would doubtless extend the privilege to other amateurs.

PARTICULARS REQUIRED.—Will any of our readers who have had dealings with Mr. C. Rosedon, of 35, Swan Street, Swansea, at once communicate with us? He advertised in the "Sale and Exchange" column of the 12th of July.

## Societies' Meetings.

BIRMINGHAM PHOT. SOC.—At the ordinary meeting of the above society held on 24th July, at St. Edmund's College, Mr. W. Griffiths gave a very interesting paper on "Stereoscopic Photography." The lecturer described the different apparatus required, mode of working, etc., and illustrated his remarks with a number of beautiful stereoscopic slides on paper and glass. Mr. W. J. Harrison, F.G.S., who presided, complimented Mr. Griffiths on his instructive paper, and said he was sorry a larger number of members had not availed themselves of the pleasure of having the paper. Messrs. Karleese, Middleton, Taylor, and others took part in the discussion which followed. The result of the first photographic competition towards the Warwickshire photographic survey was announced. A gold medal was offered by Mr. S. G. Mason, a silver medal by the Society, and a bronze medal by Mr. A. Constantine, for six photographs taken in Warwickshire, at places accessible to the general public; to be taken between March 1st and June 30th, 1890; three to be open landscapes, part of each to be a river or stream, and three to be of a rustic cottage, or cottages; the six prints to be exhibited on one mount. The awards were offered for excellence of the group of photographs, artistically and technically, and the negatives of the prize photographs to be placed at the disposal of the committee for the photographic survey of Warwickshire. The pictures were sent to Mr. George Bankart, President of the Leicester Society (who kindly consented to act as judge), who awarded the prizes as follows: Gold medal, "Light and Truth," Benj. Karleese; silver medal, "Cannon," Arthur J. Leeson; bronze medal, "Avon," W. Jerome Harrison. On Saturday last a good number of members and friends took part in the monthly half-day excursion; Warwick being the rendezvous for the afternoon. A very pleasant time was spent under the leadership of Mr. Geo. A. Thompson, when over 100 plates were exposed by the party.

HOLBORN CAMERA CLUB.—Friday, July 25th, lantern night. Mr. Fenaughty in the chair. Messrs. Plumbridge and Thompson manipulated the lantern. A very excellent set of slides of the Paris Exhibition, the property of Mr. Chang, was thrown on the screen, and was much appreciated by the members present; then followed a miscellaneous collection of photographic and coloured views of home and abroad. The evening terminated with a vote of thanks to Mr. Chang for his loan of slides, which are to go to the Southern Counties Cycling Camp, and will there be shown in the open on one or two nights.

THE "PELICAN" ON PHOTOGRAPHS.—There are less exhilarating amusements than looking in a photographer's shop windows. It is not a tiring method of killing time, and really one is able to acquire a good deal of useful information concerning human nature. The photographer's shop window is, after all, only a sort of museum of freaks—freaks who are celebrated for doing something, as well as freaks who have gained a name for doing nothing. There is the good bishop and the gushing ballet-girl, the pugnacious prize-fighter and the artless actress. Each is a celebrity in his or her special sphere. Outside of it many of them are nonentities. In the photographer's windows they all stand in a line. There they are at least equal—in price. The bishop should be of more intrinsic value than the ballet-girl, but you can buy them both for two shillings apiece. The most amusing portraits in these free exhibitions are those of fools. There is the obscure actress, for instance. She never gets a chance of playing a decent part, and so in default of walking the boards she appears before the public in all the glory of black and white, on stout card, price eighteenpence. These poor creatures go through a regular course of photographic portraiture, which to them is doubtless as satisfying as running through a season at the theatre. But the dramatic profession is not the sole producer of photographic fools. There is the youth who loves to pose in hunting garments, though the only horse he has ever mounted is a towel horse. There is the amateur soldier and the artificial barrister, the youth who hires a naval uniform, and a host of others who make frantic efforts to appear what they are not, and who fill shop windows with representations of themselves in absurd attitudes. It must be an expensive amusement from their point of view, but from that of the public at large it is cheaper than going to a pantomime, and one hundred per cent. more amusing.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4048. **Developer for Shutter Exposures.**—Would some brother amateur kindly give me a formula, and, what is of more consequence, the way it should be mixed and used for developing shutter-exposed plates? I use an extra-rapid Eury scope lens, working at  $f/6$  and  $f/8$  in bright sunshine, Kershaw's shutter, and Cadett's lightning plates, and I cannot get one negative fit to print with, and many have nothing at all on them beyond the merest shadow of an image. Is not the operator more at fault than developer used?—JOHNNY.

4049. **Tour of the Wye.**—I am intending to visit this district for a week or so with camera in the beginning of September next, and should be glad of any information as to best places to visit, etc.? If any young photographer is going in this district at the same time I should be glad of his company.—H. C. W. (address with Editor).

4050. **Plates in Austria.**—Can any of your readers kindly tell me where I can obtain Ilford half-plates in the Austrian Tyrol District, Salzburg, Gmunden, etc.? Also at Munich, Nuremberg, and Vienna, and the names and addresses of the shops?—C. H. P.

4051. **Negative Varnish.**—Will anyone kindly give me a recipe for above, and directions how to apply the same?—E. F. BECHER.

4052. **Transparent Film.**—Will any readers give their experience of the Eastman transparent film and roll-holder? Have used xylonite, but want something more portable than the ordinary dark slide. Will the roll-holder stand vibration?—CYCLIST.

4053. **Silver Prints.**—Can any correspondent tell me why my silver prints, which are the right colour after toning and fixing, should turn red in the washing? I leave them in water all night.—F. H.

4054. **Paget Prize Plates.**—Would someone who uses these plates kindly say what exposures are required with them? The makers say nothing about their rapidity.—HYDRO.

4055. **Varnishing.**—Will anyone kindly give me instructions as to varnishing opatypes, and what to use for that purpose? Also the name of any book on opatype productions and instructions for producing same.—ANTWERP.

4056. **Exposure.**—Will any reader oblige by telling me how long an Ilford ordinary plate should be exposed on a tolerably fine day, and when I can tell if a plate is sufficiently developed, using pyro?—BEGINNER.

## QUERIES UNANSWERED.

April 4th.—Nos. 3664, 3674, 3677.

18th.—No. 3718.

25th.—Nos. 3727, 3742, 3747.

May 2nd.—No. 3758.

16th.—No. 3820.

23rd.—Nos. 3839, 3843.

June 6th.—Nos. 3883, 3884.

13th.—Nos. 3885, 3896, 3901, 3910, 3911.

20th.—Nos. 3917, 3918, 3922, 3924, 3927, 3928, 3929.

27th.—Nos. 3937, 3935, 3939, 3940, 3948.

July 4th.—Nos. 3950, 3953, 3967, 3968, 3969, 3972.

11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3990, 3991, 3992, 3994, 3995, 3997.

18th.—Nos. 4003, 4004, 4005, 4007, 4008, 4009, 4013, 4014, 4016, 4017, 4020, 4021, 4023, 4024, 4025, 4026, 4027, 4029.

25th.—Nos. 4031, 4032, 4033, 4337, 4041, 4045, 4049.

## ANSWERS.

4028. **Lens for Hand-Camera.**—If "J. H. Telfer" will write to me I could help him.—HOPSKITTLE (address with Editor).

4033. **Matlock, Plates at.**—Both Thomas's and Ilford plates can be got at Bull's, close to railway station, Ashbourne.

4034. **Reducer.**—3 grs. of ferricyanide of potassium to 1 oz. of hypo 5 per cent. This solution must be freshly prepared.—R. K.

4034. **Reducer.**—I have given the following again and again in these same columns, but as you appear to have forgotten it, here it is—(I presume you want general and not local reduction):—Take of Ferricyanide of potassium ... 1 oz.  
Water (to make) ... 10 ozs.

Place your negative in a porcelain dish, and cover it with water (for a half plate, say 2 ozs.), then into the measure pour one drachm of the above ferricyanide solution, and one drachm for fixing solution (strength about 4 ozs. of hypo to the pint). Pour the water from the dish into the measure, and return the mixture to the plate. The reduction will now take place, and if not sufficiently thin when all action has ceased, more of the ferricyanide and hypo solutions may be added. When sufficiently reduced, the negative must be well washed, and reared up to dry in the ordinary way.—W. A. J. CROKE.

4035. **Fixing Bath.**—You evidently do not leave your plate in the fixing solution long enough, or, perhaps, you have had your hypo soda by you in an uncovered bottle for a long time, as from 4 to 5 ozs. of hypo to the pint of water is quite strong enough.—W. A. J. CROKE.

4038. **Detective Camera.**—See reply to "J. H. Telfer" No. 4028.—HOPSKITTLE.

4038. **Detective Camera.**—Try the Optimus, Messrs. Perken, Son, and Rymont, 99, Hatton Garden, E.O. You will find some good instructions in *Work*, published by Cassells a week or two back, as to making a simple shutter and finder.—R. K.

4039. **Mounting.**—Starch in every possible way. If "Toff Wall" will read "A Few Hints on Mounting Silver Prints," in vol. viii., No. 213, p. 231, he will find full particulars, and a simple method for mounting.—W. A. J. CROKE.

4039. **Mounting.**—Ordinary starch is the best and cheapest for mounting.—WHOROO.

4040. **Cheap Camera.**—The best is emphatically the cheapest in the end. Get a Meigher's camera and a Wray's lens.—WHOROO.

4040. **Cheap Camera.**—I have a friend who says the Lancaster International is the best he has ever used, both for in and out door work. The price, including shutter for time and instantaneous work, is 50s. for a quarter-plate, any size ruby glass.—R. K.

4041. **Keeping Toning Bath.**—I am glad you have found my formula answer; but it will not keep, and if it would it would be no good, as 8 ozs. of the solution (strength,  $\frac{1}{2}$  oz. borax to 1 quart of water) and 1 gr. of gold is only sufficient to tone one sheet of paper. Keep your borax and your gold in different bottles, and mix when you want to use.—W. A. J. CROKE.

4041. **Keeping Toning Bath.**—Some little time back in this journal appeared a correspondence demonstrating that the idea that the borax bath would not keep was a superstition; though it became almost black, yet it toned well.—BECHER.

4043. **Bromide Paper.**—Use hydroquinone developer; it gives as good a black as iron, is safer, and more under control. You can get grey prints by using developer a little weaker or older.—WHOROO.

4044. **Loan of Slides.**—Messrs. Sands and Hunter, of 20, Oranbourn Street, W.O., are the only people I know of from whom you could hire photographic apparatus.—W. A. J. CROKE.

4047. **Guinea Hand-Camera** is very good value. It takes a picture  $3\frac{1}{4}$  square on a quarter-plate.—B. H.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S POST if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED. AM. PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

ALFRED WATKINS.—Many thanks for the opportunity of examining the negative of St. Catherine's

Chapel, which was exposed twenty-five minutes, at nine o'clock in the evening. In our opinion the work would have been much better done at 9 a.m. We note that the time of exposure agrees with that which would be registered by your "exposure meter." Print and negative are returned.

T. S. R.—There will be no notice of "June competition prints" in the *Photographic Reporter*. The July prints are all reviewed.

W. F. P.—The best of the two prints is certainly "Christchurch Priory." In the photograph of the font you should have secured the whole of the base. You show considerable ability for a worker of only six months' standing. Use matt-surface paper; your prints will look much better. Squeegee on to ground-glass.

A. F. KELLY.—(1) You will find the developer give you considerable latitude. If you secure success with a developer, keep to it. (2) The lens named is capable of doing most admirable work. You cannot do better for the money. (3) The tripod you name is one of the best in the market. (4) No, it is difficult to handle, and only a small percentage of workers get good results. (5) If you use the plates, be contented to work with the formula given by the maker.

V. SNOW.—Will notice next week.

F. H.—The print is very excellent; you have made the best of a difficult subject.

JOHN STARR.—We insert your letter.

H. L. DUBEDON.—The camera is exceedingly well made, and an excellent instrument in every respect. It is possible that the makers would supply a camera with the back to swing from the centre. The lens you name, and so are those supplied by the makers of the camera. You might with advantage get both from them.

J. WAINWRIGHT.—Advertise it in the "Sale and Exchange" column. We neither buy nor sell photographic apparatus.

HYDRO.—Why did you not write direct to the makers. They will at once give you an idea as to exposures.

CYCLIST.—We publish a leader on Films next week.

T. A. RONCHETTI.—We never recommend either "sub rosa" or otherwise. Looks to us as though it was caused by a dirty developer, possibly your plate was dusty. We have rarely seen so many pin-holes in a negative. Intensifying will do no good. The intensifier you use is the best. Your exposure is at fault, if all your negatives require intensifying. We do not reply by letter. Shall we return negative?

T. F. BELL.—Write to the Secretary of the Zoological Society, Hanover Square, W., for a permit; you will have no difficulty, we think. Shall be pleased to see you, and show you the camera you name, and any others that may be on view. Our days are Mondays (afternoon) and Thursdays (morning).

W. R. GALLOWAY.—We will utilise your kind notes upon some future occasion.

REV. W. MANN.—Please send up the negatives. May we hope to see some of your work when you come back?

JOHN T. GRIFFIN.—Yes, provided it were not a prize one, and conformed to the subject of the competition.

D. E. GODDARD.—All right; shall write you soon. "Streets of London" good idea.

NEWCASTLE.—It is our wish that the correspondence shall cease, therefore abstain from publishing your last letter.

B. T. ORD.—We will write you. The letter has been laid on one side. Wall says, "In all symmetrical doublet lenses the proper position of the diaphragm is equidistant between the two combinations; in unsymmetrical combinations the position is proportionate to the foci of the combinations."

J. W. JORDAN.—You will be quite safe in adopting slow development, and in keeping back the accelerator. The plate must, of course, be covered, but strengthen the developer gradually.

C. W. BASSANO.—Many thanks for the print. The gold should not precipitate if the bath is properly made up and kept from the light. We do not believe in combined fixing and toning baths.

A. ROBINSON.—(1) Yes. (2) Certainly. (3) With  $f/13$ , diffused light  $1\frac{1}{2}$  secs.;  $f/8$ ,  $\frac{1}{2}$  secs.

J. JACKSON.—Castile soap.

C. H. POLLARD.—Yes; begin on a half-plate, No. 7, 8, or 9; or a quarter-plate of either make may answer your purpose.

MAJOR BECHER.—Thank you very much for the suggestion.

HYDROQUINONE.—Your developer has been carelessly poured over the plate, and probably not properly mixed. Actinometers are used for testing for exposure, and the darkening of the sensitive paper is the base upon which the time of exposure is determined.

W. J. D. WALKER.—You will note we utilise a portion of your note. The general question is dealt



with in our leader this week, and so the matter will be allowed to drop.

E. NEWMAN.—Send us further particulars. You will see we comment upon the subject.

J. H. TELFER.—We should advise 2; but do not know if it will give you a fixed focus of 4 ins. Ask the maker.

J. KIMMINS.—Certainly.

R. H. B.—A is a good shutter, and it is claimed that it can be set as you suggest.

C. A. T.—You seem to have done right. Send us one of the prints you toned and the plate, repeating your complaint.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the maximum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

**Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.**

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.**

**"Amateur Photographer."**—AMATEUR PHOTOGRAPHER, four vols., perfectly clean, with indexes; 4s.—46, Victoria Road, Clapham Common.

**Cameras, etc.**—Apparatus complete, whole-plate camera (Lancaster's) two lenses, one by Ross, and drop shutter; £4 10s. — W. Lewis, 17, Warwick Street, S.W.

7½ by 5 square camera, double extension, three backs, two cases; £8; particulars on application.—Photo, 173, Hemingford Road, Islington.

To photographers. Studio camera, cabinet and c.d.v. lenses, furniture backgrounds, host sundries, for sale cheap; approval; state wants. — Engineer, Beamsley, Skipton.

McKellen's 8½ by 4½ camera, five backs, turntable tripod, leather case, etc.; £9; practically new; only used few times; approval. — Engineer, Beamsley, Skipton.

Camera, whole-plate, long focus, and three double slides, all new and latest pattern, cheap. — Moore, 209, Sauchiehall Street, Glasgow.

For sale, Underwood's 12 by 10 bellows-body camera, with one double dark-slide, latest improvements, excellent condition; price £8.—James Fry, Tyne-mouth.

Half-plate, wide-angle, long-focus camera, with all latest improvements, three double slides; price 90s. — Francis, 77, High Street, Deptford.

Half-plate camera, three double slides, 50s.; whole-plate Godstone print-washer, 5s.; Decoudun's photometer, 6s.—Carsberg, 8, Meredith Street, Clerkenwell.

**Canoe, etc.**—Centre-board sailing canoe, complete, good condition, in exchange for good lens, large camera, or photographic sundries; also a 54 in. bicycle, ball bearings.—Cousins, jun., Birchington.

**Hand Cameras.**—Abraham's Ideal hand-camera, scarcely used; approval; 70s. — Hy. Thompson, 8, Grosvenor Terrace, Harrogate.

Kodak, 5 by 4, regular, nearly new; £8 10s.; cost £2 0 7s. 6d.—F., Union Society, Cambridge.

Griffiths' hand-camera; 15s. — Waters, 21, Westbourne Park Road, Bayswater, London.

**Hand-Cameras, etc.**—Optimus hand-camera, with six double dark-slides, fitted with Taylor's 5 in. lens, Thornton-Pickard shutter, and Taylor's view-finder, very complete, does splendid work, full particulars; price £5.—John Robson, 26, Scotch Street, Carlisle.

Rouch's 5 by 4 Eureka detective camera, alpenstock tripod, and solid leather case, condition as new; price £6. — Townsend, Attleborough Lodge, Nuneaton.

Marion's miniature hand-camera, takes 2 in. plates, rectilinear lens, shutter, 12 backs in leather case, and shoulder strap, 39s.; a 12 by 10 Lancaster's Instantograph lens and shutter, 33s.; a 12 by 10 rapid rectilinear lens, with stops, 80s.; Facile detective (Fallowfield's), cost £3 13s. 6d., good as new, £2 17s. 6d.; a half-plate ditto, 25s.; Little Dot hand-camera, 22s.—Walton, 123, High Street West, Sunderland.

Fallowfield's latest Facile hand-camera and extra waterproof covering, perfect, cost £5 5s., for £4 5s.; Watkins' exposure meter, 10s.; approval to Editor. — J. Morson, North Road, Durham.

Collins' patent quarter-plate detective camera, in solid leather, three double backs, two finders; list price, 8 guineas; take £5; exchanges. — Phillips, Laurels, Romford.

**Lantern.**—Hughes' Pamphengos lantern, new, cost 123s.; take 90s.; approval.—Engineer, Beamsley, Skipton.

**Lenses.**—Quarter-plate rectilinear lens, working f/6, 5 in. focus; price 25s.—Gerald Smith, St. Ann's Vicarage, Stamford Hill, N.

Pair of single stereo lenses, fixed in a moveable front, with shutter for time or instantaneous; price 15s.—C. D., 32, Heaton Lane, Stockport.

For sale, half-plate R.R. lens (by Watson), with stops, complete, condition perfect; cash offers, or would exchange for wide-angle R. lens by equal maker. — 70, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, E.C.

Optimus rapid Euryscope, 7 by 5, f/6, in good condition; 3 guineas. — Alpha, 8, Bath Street, Brighton.

**Lenses, etc.**—Lens, rectilinear, 7 by 5, loose hood, with stops, working to f/8, best finish, quite new; 25s.; approval 6 stamps. Also solid leather camera case, quite new; 14s. 6d. — 1, Hermitage Mews, Stamford Hill, N.

Three bargains! Giving up photography. Quarter-plate portrait lens, perfect condition and excellent definition, 8s. 6d.; quarter-plate Lancaster's Instantograph lens, Iris diaphragms, shutter, and cap, guaranteed perfect, 12s.; Dallmeyer's extra-rapid single stereoscopic lens, f/10, as new, cost 40s., cash 25s. Upon receipt of P.O. for either lens, will be sent carriage paid, and money returned if not as represented.—T. Gamson, 77, Essex Road, Islington, London, N.

Optimus lens, new, 7 by 5, rapid rectilinear, with stops, £2; Lancaster's half-plate Instantograph lens, complete, with shutter, £1; Meagher's 6½ by 4½ bellows camera, six double, one single dark-slides, £2; whole-plate bath in case, 5s. — Valentine Charles, Steyning.

Quarter-plate lens, with three circular stops, folding tripod, half-plate, Simplex drop shutter, to fit any lens, pneumatic release, and other sundries on application.—J. J. Shorrocks, Longmarsh, Darwen.

The Rev. W. J. Christie, Rectory, Newtown-stewart, Ireland, has for sale No. 4 Ross' portable symmetrical, 63s.; Grubb's A2 c.d.v. lens, 35s.; splendid 5 by 4 R.R. 25s.; Abraham's Eclipse shutter, 3 in., 10s.; camera, half-plate Paragon, all movements, three slides, spring shutters, in cases, and stiff canvas case for all, with lock, £4.

8½ by 6½ R.R., 50s.; 7 by 5 Optimus, 35s.; 5 by 4 Ross' R.S., 65s.; 4 by 3 R.S., £3; Marion's Miniature camera, 12 slides, £2; Rouch's developing tent, £3; burnisher, 30s.; all practically new and perfect; approval.—Engineer, Beamsley, Skipton.

9 by 7 R.R. lens, excellent definition, 30s.; solid leather case for half-plate camera, 15s.—James, 57, Charing Cross, S.W.

**Sets.**—For sale or exchange, whole-plate tourist outfit, with burnisher, almost new, also a quarter-plate, and all apparatus. — James Ingham, New Mills, near Stockport.

Must be sold. Half-plate McKellen's pattern camera, revolving reversing frame, swing-back, rising, swinging front, turntable, handsome waterproof case, three slides, three-fold sliding tripod, with or without Swift's 8 by 5 rapid Paragon lens, Iris diaphragm, all equal to new; what offers cash? — J., 35, Sherriff Road, West Hampstead, London.

Half-plate Instantograph (Lancaster's), complete outfit throughout; cost £6; what offers? — Wm. Eastwood, Longwood, near Huddersfield.

Half-plate Lancaster's Le Meritote camera, tripod, changing bag, and every accessory for work, splendid condition; £3 10s.—P. Galley, Fern House Murchison Road, Leyton, E.

Whole-plate camera, conical bellows, latest improvements, new, only used once, Optimus R.R. lens, 9 by 7, three-fold tripod, very light, three double dark-slides, with cases, leather bag for camera, cost £20, accept £14, bargain; also whole-plate Newman's shutter, 20s.—T. L., 11, Eton Villas, Crown Hill, Harlesden, N.W.

10 by 8 Optimus camera, two double and one repeating backs, new, waterproof case, Beck's lens, tripod, film carrier, inner frames, plates, and films; cost £20; cheap, cash. — Knight, Middle Street, Southsea.

Lancaster's half-plate Instantograph camera, lens, shutter, four double dark-slides, one wood, three metal, quarter-plate carrier and focussing cloth, in waterproof bag, nearly new, also mahogany tripod stand, with straps; price £4. — G. Dixon, 94, Falmouth Road, New Kent Road, S.E.

5 by 4 long-focus camera, brass-bound, reversing double swing-back, Wray's rapid rectilinear lens, Kershaw's shutter, Watson's three-fold tripod, case, also hand-camera, with three double backs, adapted for above, lens and shutter, all as new; cost over £12; price £7, a bargain. — A. J. Sells, 191A, Mare Street, Hackney, N.E.

Splendid whole-plate camera, nearly new, three double slides, R.R. lens, tripod, bag, etc. — Jones, Enfield House, Uffculme, Devon.

Sands and Hunter's 5 by 4 Exhibition camera, 3 backs, tripod, R.R. lens; cost £10; take £6; approval.—Engineer, Beamsley, Skipton.

Lancaster's quarter-plate Merveilleux camera, rapid rectilinear lens, with Waterhouse diaphragms, and stand, cost £2 4s., excellent condition; 25s.—F. Mills, 17, Young Street, Kensington.

Lancaster's Instanto, 1889 pattern, rectilinear lens, Universal stand, and mahogany case, with lock an key; case alone worth 15s.; the lot for £3 10s.—F. Powell, Chipping Sodbury.

Half-plate bellows camera, double dark-slide, tripod, and lens, with two stops, all in good condition; price 30s.—O. Foreman, East House, Leadgate, Durham.

Good quarter-plate outfit, 7 by 5 Optimus R.R. lens; cost over £9; will take £5; list sent.—Smithers, Cauldwell Road, Ipswich.

Special camera, Lancaster's whole-plate, stand, lens, one double back, carriers for smaller sizes, as new; £5. — Belton, Octavius Street, High Street, Deptford.

Lancaster's quarter-plate Instantograph, 2 double backs, lens and shutter, metal tripod; 30s.; or exchange for Optimus 7 by 5 R.R. lens.—M., 8, Halsbury Road, Kingsdown, Bristol.

Whole-plate light Premier camera (by Watson), in perfect condition, good as new, folding tripod stand, and leather lock-up case, the lot £10; also 10 by 8 Ross' rapid symmetrical lens and Serjeant's shutter, £7.—J. F. Roberts, 7, Upper Thames Street, E.C.

**Slides.**—For sale, 12 home-made quarter dark-slides, nearly finished; 1s. 6d. each; specimen sent, 1s. 9d.—X. Y. Z., Bath Lodge, Reading.

**Violin, etc.**—Wanted to exchange violin and case, also medical battery, for good half-plate R.R. lens.—B., 49, Freshney Street, Grimsby.

**Violin, Case, etc.**—Violin case, etc., honestly worth £4, in exchange for half-plate camera and fittings, Lancaster's preferred.—66, Court Hill Road, Lewisham.

## WANTED.

**Camera, etc.**—8½ by 6½ camera, three backs, turntable tripod, McKellen, Watson, or other good make.—Engineer, Beamsley, Skipton.

**Camera Case.**—Carrying case for 12 by 10 camera, also one for slides; must be good and cheap.—James Fry, Tyne-mouth.

**Dark Slides.**—Four whole-plate double dark-slides for Lancaster's Instantograph, lowest price. — Omroga, 43, Sinclair Road, West Kensington.

Wanted on loan for a fortnight, two or three double backs for Lancaster's half-plate Instantograph; careful usage; write, stating rent.—Summers, 99, New Kent Road, London.

**Hand-Cameras.**—Kodak, No. 2 or 3, in good condition. — No. 71, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London, E.C.

Hand-camera. Exchange tandem tricycle, Humber pattern, by Hillman, Herbert, and Cooper, value £10; full particulars.—J. O. Grant, 63, Finsbury Pavement, E.C.

**Lenses.**—5 by 4 Optimus R.R.; lowest price for cash.—Trench, Rose Mount, Birkenhead.  
Good half-plate landscape lens, by first-class maker.—Cousins, jun., Bircnington.

**Mounting Apparatus.**—Tylar's print-mounting apparatus, half-plate or cabinet. — F. O. Barton, Saffron Walden.

**Squeegee.**—Half-plate roller squeegee, cheap; also half-plate burnisher, with lamp. — F. O. Barton, Saffron Walden.



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### "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS OF THE AMATEUR PHOTOGRAPHER OFFER, MONTHLY, TWO PRIZES CONSISTING OF A

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), FOR THE BEST AND SECOND-BEST PHOTOGRAPHS SENT IN TO EACH OF THEIR MONTHLY COMPETITIONS. THE SUBJECT OF THE COMPETITIONS WILL BE AS FOLLOWS:—

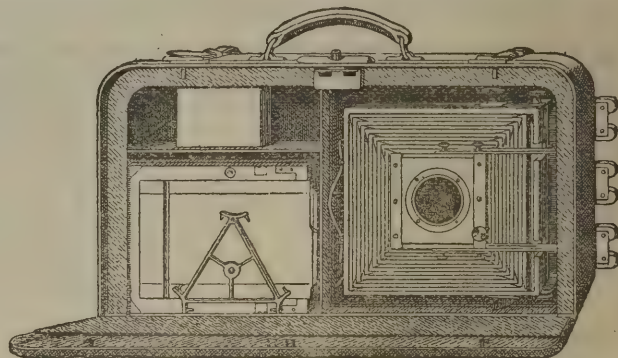
GENRE OR FIGURE STUDY ... .. Aug. 14.  
INSTANTANEOUS PHOTOGRAPHS, "ANIMALS," ETC. ... .. Sept. 14.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors.

All photographs for any of the above competitions must be received by the FOURTEENTH DAY OF THE MONTH, and as received will be acknowledged in the columns of the AMATEUR PHOTOGRAPHER.

All photographs criticised in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, "Amateur Photographer," 4, Creed Lane, Ludgate Hill, London, E.C.



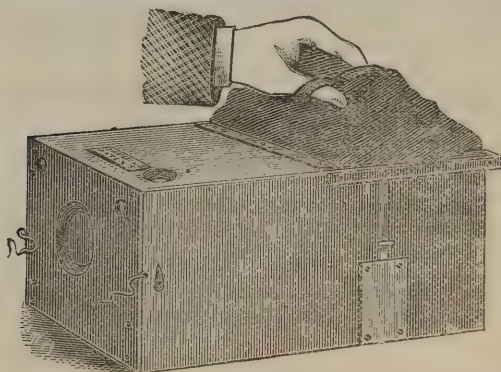
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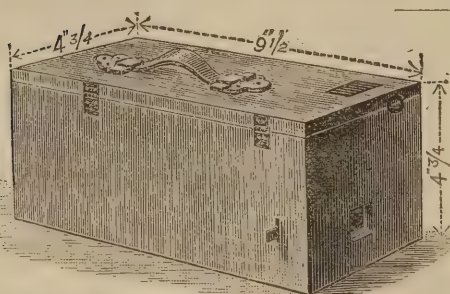
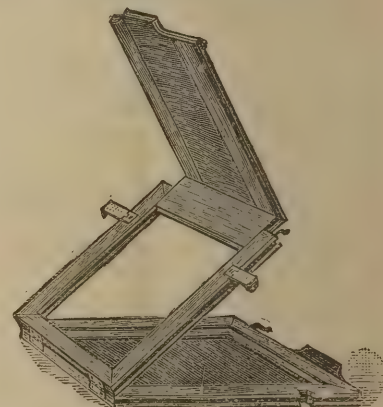
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# The AMATEUR PHOTOGRAPHER

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Edited by CHARLES W. HASTINGS

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FRIDAY, AUGUST 8, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

IN another column we publish a tabulated list of Exhibitions, the dates when opened and closed, and the name and address of Secretary. Should any by inadvertence be omitted, we shall be glad of particulars, our desire being that the list shall be as complete as possible.

\* \* \* \*

WE have received from a correspondent who has spent much time in India, several most interesting photographs for our hospital collection. Each photograph has on the back of it an account of the place or circumstances it depicts. The same correspondent suggests the composing of pictures to illustrate proverbs, and sends an admirable example in a photograph illustrating the proverb, "You may take a horse to the water, but you can't make him drink." The suggestion is worth consideration, and we shall be glad to hear from any who try their hand at the photographic illustration of proverbs.

\* \* \* \*

At the last meeting of the members of the Liverpool Amateur Photographic Association, a very excellent paper was read by Mr. J. W. Wade upon "Landscape Photography." Mr. Wade is a prominent member of the Manchester Amateur Photographic Society. The paper was listened to with much interest.

\* \* \* \*

THE article in the *Photographic Quarterly* upon "Photography in Natural Colours," by Mr. F. Bligh Bond, has attracted much attention. Already we hear of several journals proposing to use chromo-collotypes as illustrations. We shall, of course, watch the progress of this branch of photography, having in the *Quarterly* published the first printed from negatives made sensitive to different colours that has ever appeared in any publication in this country.

\* \* \* \*

WE shall be glad to hear from Secretaries of Photographic Societies who may wish to have the loan of the "Travelling Studentship Competition" photographs, and those contributed to the "Monthly Competitions," in order that the dates may be filled up for the winter session. In making application it is well to give, say, two or three dates, in order to more easily arrange the rota. Any of the parcels will afford pleasant and profitable entertainment for an evening's meeting.

WE hope very shortly to be able to give a short article upon photographing in Iceland. We understand that the party that went out with Mr. Paul Lange had a splendid time of it, and that some very excellent photographs were taken. The district has up to the present received but little attention from photographers. We understand that Dr. Valentine Knaggs, a very ardent worker, visited Iceland last year.

\* \* \* \*

GOING through an old volume of *Household Words* for the year 1856 we came across an amusing skit on photography, in the series "Milverton Worthies." A little light reading at this season of the year is allowable, and we reproduce the article, which shows what photography was five-and-thirty years ago.

\* \* \* \*

IN another column will be found a very able paper on "Iron Development," by Mr. D. E. Goddard. The paper is written more particularly for those commencing photography. Mr. Goddard is an earnest worker and a great believer in ferrous oxalate. We are much indebted to him for having set out so distinctly the advantages of the developer, and we have no doubt that many who have not, will now try his formulae.

\* \* \* \*

At the last meeting of the Photographic Society of Great Britain, Sir H. Trueman Wood read a short paper upon "Photographing the Electric Spark" by means of the Wimshurst induction machine, the powerful sparks of which are not unlike lightning flashes. The photographs with which the paper was illustrated showed that the most perfect reversal was obtained by a preliminary exposure of two or three seconds, and a subsequent exposure of about five. Sir Henry said—

"All the experiments, it appears to me, go to confirm the theory put forward by Captain Abney, and elaborated by Professor Meldola, as to the cause of the reversal of the photographic image—namely, that the bromide set free by the action of light begins, as soon as a certain quantity has been liberated, to combine with the reduction product originally formed, thereby forming fresh bromide of silver, and re-sensitising the portion of the plate where the effect is produced. This re-sensitising effect is plainly shown in many of the photographs in which a non-reversed image of the spark crossing a reversed image occurs. In these the bright line overrides the dark line of the reversed



image. The same effect has also been shown in several photographs of lighting, in which a second flash has crossed the image of a previous one which had undergone reversal. Some curious points about the experiments are that considerable previous exposure to the illuminated screen has no reversing effect on a spark taken on the plate, whereas if the spark be taken first and the exposure made afterwards, the reversal is complete. On the other hand, and this agrees with previous observations on the reversal of the photographic image, a short previous exposure seems to facilitate reversal. Further confirmation of Captain Abney's theory is given by the fact that if the photograph be taken on a plate one-half of which has been soaked in or brushed over with potassium nitrite, though the reversal can be caused to take place as usual on the untouched part of the plate, it is prevented or greatly lessened in the part wetted with the nitrite. Attention may be called to one of the photographs shown, in which the reversal has been effected by exposing the plate first to two ordinary sparks, and secondly to the brush discharge of the machine itself—perhaps as near an approach as can be made by artificial means to the effect of a flash of lighting followed by a discharge of sheet lighting. . . .

"Another interesting result obtained by photographing the electric spark is that a measure of its duration may be obtained. I am able to show you some photographs of the spark taken on a rapidly rotating plate. The plate, or film, for many of the photographs were taken on paper, was mounted on a disc which was rotated by an electro-motor at a speed in some cases exceeding 2,000 per minute. The largest disc was 20 ins. in diameter; the smallest about 4 ins. Of course, the larger the disc the greater the circumferential speed, but in practice the motor I was using could not drive the large discs at the very high speed, and the greatest speed I got was with a disc of 8 in. in diameter (effective) running at 1,500. This gave a speed of 600 ins. per second at the point when the outer end of the spark was photographed. There is no perceptible difference in the width of a spark taken when the plate is stationary and that of one taken when the plate is running full speed, and certainly it is not displaced to the extent of the twenty-fifth of an inch. It follows from a simple calculation that it does not last the 10,000th part of a second."

\* \* \* \*

Is there any copyright in a man's portrait? Can a man with a hand-camera photograph a public man, copyright the photograph, and sell it to the public? These are points which at the present time are exercising public attention. Fabulous sums are paid for celebrities to sit, and yet it is difficult to see how they are to be protected from unscrupulous users of the hand-camera.

\* \* \* \*

WE have just been informed that the Lantern Society has obtained the use of the rooms belonging to the Royal Medical and Chirurgical Society, at 20, Hanover Square, and, through the courtesy of their Committee, at a very moderate rental. These rooms are centrally situated, and are frequented by several scientific societies, amongst whom are the Royal Microscopic and Quekett Club. Meetings will be held for the purpose of reading papers and exhibiting lantern slides on the 2nd and 4th Mondays in each month, from October to April inclusive, at 8:30 p.m. Several applications for membership having been received from ladies, the Council desire it to be known that they are eligible for election.

\* \* \* \*

THE fact that films of some description or another as substitutes for glass in the creation of negatives have supplied a want among photographers, and the demand is not considered by those most qualified to form sound opinions as a mere passing fancy for an attractive novelty, is clearly shown by so many well-known plate manufacturers, both in America and England, having adopted celluloid or other material of a similar character as a support for their emulsions. Ever since dry-plate photography ousted the old wet-plate method of procedure, there has been a demand for some substitute for glass which, while possessing certain

of its advantages, would have none of its prominent defects. The drawbacks of glass were its liability to breakage, its great weight, and the difficulty of always obtaining it free from spots or surface markings. Now celluloid supplies the *desideratum* to a nicety, consequently it will doubtless gradually establish for itself a position of a constant and permanent character directly it can be safely stated that it will not undergo any deterioration by age of a nature to destroy its value as a transparent support for a negative, or that the ingredients entering into its composition will not, in course of time, exert any objectionable influence upon the delicate substances with which it has to be coated. Chemists who have examined into the matter do not hesitate to give us this assurance, but time and experience alone can supply such statements with the requisite confirmation. Meanwhile photographers must place faith in what they are told, and rejoice to think that in the substitution of celluloid for glass, dry-plate photography has made another distinct advance.

That it is an advance, if, as before remarked, its permanency can be assured, we have no hesitation in stating most emphatically. We have lately had some considerable experience in the manipulation of numerous makers' films, and have, when testing them, found them to be as reliable as glass plates of similar character, quite as easily worked, and in some instances have under equal conditions yielded negatives of distinctly better quality. Again, for those who pin their faith on fast plates, we can endorse the statement that to some extent celluloid has a tendency to increase the speed of the emulsion. At any rate, a glass plate and a celluloid sheet coated with the same emulsion, which was of a very rapid character, and manufactured by a well-known maker, when tested seemed to give in our hands a positive confirmation of the statement to which we have referred.

The films we have lately had brought to our notice have been "Eastman's transparent films," for use in the Eastman-Walker roll-holder; "Fry's celluloid films," in two rapidities; "England's celluloid films;" "Thomas's thickly-coated extra-rapid films," and the same firm's "thickly coated landscape films;" "Anthony's Climax negative films;" and "the Obernetter films," supplied by Gotz, which, by the way, appear to be made of a species of insoluble gelatine. Upon all the films here enumerated which are coated upon celluloid of a thickness to give rigidity, the treatment is in every way similar to that required by a glass plate. We must, however, profess a preference for the result yielded by the celluloid negatives. The colour when pyro and ammonia or pyro and soda formulæ are used for development may not be quite as clear as it is with glass, for some reason or another, but this detail in no way affects the printing qualities, or rather the results, but, if anything, proves the often stated fact that pretty negatives are not always good negatives. Some makers recommend hydroquinone as the best developer for their emulsions, and they have, no doubt, good reasons for doing so, but in our hands we found that pyro was in every instance equally good, and in one or two instances seemed to have some superiority.

The boon which the Eastman's transparent rollable film is destined to confer upon users of hand-cameras and upon travellers is considerable, now that the initial difficulties in making it reliable are being overcome. Some of the very best negatives of a small size that we have ever seen have been taken on these films. A slight difficulty in manipulating them during development and in their subsequent treatment in order to keep them flat, may be encountered at first, but a little experience soon enables this to be easily accomplished. Upon the subject of these films and their treatment we may have something to say upon another occasion, when we propose drawing attention



to certain methods of manipulation which in our hands have been completely satisfactory.

Two drawbacks have been pointed out in the use of celluloid films—one that they do not readily lie flat in the dark slide, the other that they have to be used for printing purposes without having a protecting coat of varnish. Neither of these details represents difficulties of an insurmountable character. By the use of a cardboard backing, or by properly constructed carriers, such as the simple contrivance sold by Mr. J. Desiré England, we have found that the films can easily be made to lie flat in the dark slides. In the matter of varnish, the difficulty will no doubt soon disappear, but in our own experience negatives are often ruined by varnishing, and the absolute necessity of their being treated to a preservative of the sort suggested has never been practically demonstrated to us. Theoretically, it no doubt appears to be desirable, but in practice, when proper care has been exercised, we have never experienced staining or any other damage from not resorting to varnishing, although in some instances negatives we now possess have had an exceptional amount of usage, having been employed for experimental purposes with numerous printing papers and mechanical methods of reproduction. On the other hand, some negatives which have been varnished are now useless through the action of the varnish itself, and from letters that now and again appear in photographic papers we have learnt the fact that our experience in this respect is only similar to that of many other amateurs.

The Obernetterfilms, which are not coated upon celluloid but are more akin to those once supplied by Mr. Vergara, require special treatment. The emulsion appears, from some experiments we have made with it, to yield beautifully clear negatives, and to possess a character which places them most decidedly above the ordinary. By employing a proper carrier we found they could be easily kept flat in the dark slides. The development is the same as it is for any celluloid film, but in the subsequent drying the instructions issued by Mr. Gotz, the London agent for these films, must be carefully followed, otherwise cockling may take place or a shrinking become apparent.

The possessor of a collection of celluloid or film negatives soon becomes aware of one of the great advantages they have over glass. The fact that a number can be kept between the pages of a book, or in a small box, and are ready to hand directly they are required, is a boon only to be fully appreciated by one who has known from experience the bother of storing, and finding when wanted, negatives taken on glass, to say nothing of the saving in the labour handling heavy packages always involves, and the danger of breakage that frequently results therefrom.

\* \* \* \*

#### AIVASOVSKY'S SEA PIECES.

The paintings of the Russian artist, Ivan Aivasovsky, which the directors of the Goupil Gallery have this year secured for exhibition, are exceedingly interesting to photographers, because they belong to that class of work in which artists acknowledge themselves indebted to the sensitive plate and to what Germans call the "Moment Apparat." Indeed, it seems that, if there is one department of photography to which artists are indebted more than another, it is that fascinating department known as instantaneous photography, by means of which they are enabled to seize some happy fortuitous grouping of picturesque figures, some momentary exhibition of skill, fleetness, or strength, or, more wonderful still, some passing mood of nature—angry waves that, lashed to fury by a raging wind, strive to strangle each other on the boundless ocean, or fling themselves in desperation against the resistless rocks of an iron-bound

coast, only to be hurled back in clouds of spray upon their own impotence; or the ever-moving, ever-changing ripples of the summer sea that lap against the smooth, resisting sands as if they loved them.

The world has as yet produced no real artist of the streets, no one who has succeeded in interpreting the romance of life amid the teeming cities of the earth; but when that artist does arise, we feel sure that he must use photography as a handmaid to his art. But the sea, the ever-moving, resistless sea, has always had a band of devotees among the artists; and wherein does the attraction lie? Surely, in the ever-present motion of the waves. The soul of the sea is manifested by motion, and an artist can only hope to successfully paint the ocean when he has grasped the problem of conveying the idea of movement in all the phases of Nature's changefulness.

And this is why Aivasovsky's pictures are so charming. He has succeeded in solving the problem of motion satisfactorily, and certainly in the more recent of his works, manifesting the sea under every effect of storm and calm, the idea of motion is ever present. We are told in the catalogue that all the pictures exhibited have been painted since 1887. That may or may not be the case, but anybody can see at a glance that some of them are far more truthful to the idea of motion than others, and that the more truthful of his works are the most recent, many being dated 1889, while the less truthful are those on which no date appears, and which give us the impression (from comparison with other works by the same artist in Moscow and St. Petersburg) of being of earlier date, and probably subsequently retouched. At any rate, we are convinced that several of these were painted before the artist had made any study of instantaneous photographs of the sea.

We fear that before this article appears in print the Gallery will be closed, but yet it may be as well to point out the difference between No. 31, "Off the Isle of Capri" (which strikes us as one of the best of what we consider Aivasovsky's earlier works), and "A Storm on the Black Sea" (No. 5), and the magnificent picture "The Supreme Moment" (No. 10), a really awful and realistic rendering of a shipwreck, realising the instant at which the vessel is engulfed amid mountains of dark-green foaming waves—the painting of which is beyond all praise. There is no doubt that Aivasovsky does not succeed so well with a calm sea, No. 14 being specially bad, and Nos. 11 and 17 distinctly inadequate. His real strength lies in the portrayal of surge and foam, and the cruel green depths of the storm-wave, with its awful reserve of resistless power. No less skilful is the artist in his rendering of clouds and sky, and much additional charm and truthfulness is conveyed by the care with which they have been studied. No. 7, "After the Deluge," shows the artist in another vein; it is a striking conception of the exodus of Noah and his family, with the animals from the ark, and the artist's knowledge of sea and sky effects has enabled him faithfully to reproduce the idea of the clouds of mist and vapour rising from the damp earth, whilst the procession fades away into the distance where Ararat indistinctly looms. No. 15 represents the Cathedral of St. Isaac, at St. Petersburg, during the depth of winter, and is the only picture here in which there is no sea; it shows that this accomplished artist is well at home in the painting of snow and frost effects, and, indeed, he has admirably caught that peculiar steel look the atmosphere has during a severe frost, and the dull frosty haze through which the sun struggles to shine on the golden domes of the cathedral. However, there is something of stiffness here, and, indeed, it is amid the turmoil and raging of a winter's storm at sea wherein the artist really delights his soul.



## Letters to the Editor.

### "F. G. S.," DR. EMERSON, AND THE CONVENTION.

SIR,—My asking for proof of the assertion by "F. G. S." that Dr. Emerson had refused to join the Convention, was simply a little *ruse* to find out for certain whether "F. G. S." and Dr. Emerson were laying their heads together to damage the Convention. Now I know about it, and so do your readers.

"F. G. S." tells us (August 1st) that he does not intend again to refer to the Convention. He is wise for once, but I have not quite done with him yet, for I do not think that performances such as his of the last four weeks ought to pass without notice. Dr. Emerson thinks I "might have assumed that 'F. G. S.' was a gentleman." I am bound to say I have not yet seen cause for any special consideration. To begin with, he attacks anonymously, and a year ago Dr. Emerson did not consider *that* quite the gentlemanly thing. Next, "F. G. S." has made certain statements which are proved to be false, and certain insinuations which are both false and mean. (1) July 4th, "F. G. S." stated that Mr. Newman's paper was a "savage personal attack" on Dr. Emerson. Whether "F. G. S." had not read the paper, whether he thought your readers would not see it, or whether he does not know the meaning of the words he uses, I cannot tell; but the statement was false. (2) August 1st, "F. G. S." states that Mr. Bothamley and I both "entirely evade the main question, which is, Is the Convention a Success; and if not, why not?" Not only have we not evaded the question, but we have replied, as directly as was becoming to us, that the Convention is a success, though not as perfect as it might be but for the underhand machinations of such men as "F. G. S." (Pringle July 11th, Bothamley July 25th, Pringle July 25th—pretty emphatic this last). So here again "F. G. S." evades the truth. (3) July 18th, "F. G. S." bangs a complaint against the Weights and Measures Committee on a letter of Mons. Warnerke to other journals. He does not examine, nor wait to see, whether M. Warnerke's attack is well founded, and, after all, it turns out that M. Warnerke had put into the mouth of the said Committee words it never used, and actually placed between inverted commas as a quotation a phrase which does not occur either in fact or in sense in the Committee's report. How does this strike your readers as deserving of my consideration?

The comments of "F. G. S." on the Convention are full of mean insinuations, which never would have been conceived, much less breathed, by any ordinary person. Thus, July 4th, he seems to suggest that the Secretary is wilfully withholding, if not falsifying, our list of members. On July 11th I confronted "F. G. S." with the insinuation, and he did not deny it. Then, July 18th, he very plainly insinuates that discussion on Mr. Newman's paper was deliberately burked as a punishment on Dr. Emerson for refusing five or six years ago to join the Convention! Could anything be more false or more contemptible than this? "F. G. S." even appears to insinuate that I engaged Mr. Newman to attack Dr. Emerson's book. The facts are that I sent Mr. Newman, without a word of comment, this book and Mr. H. P. Robinson's "Pictorial Effect." Mr. Newman wrote his paper, and sent it to me with a letter which I now hold, apologising to me for an attack on the works of my "friend," Mr. Emerson, whose donatory inscription he had seen in autograph on the usual page! So much for my having set on Mr. Newman to attack Dr. Emerson!

I think I have now sufficiently shown up "F. G. S.," his system of comment, and his attitude towards the Convention.

I don't think Dr. Emerson comes very brilliantly out of this coil. He makes the most astounding onslaught on the artists and critics and traditions of the world, an onslaught full of bluster if nothing else, and as soon as his work and words are seriously tackled by one who knows something of criticism, he joins partnership with the first one he finds to cry "hee-haw" to his trumpet sounds. In 1835 Dr. Emerson had "a great hatred of babble," in 1889 he is all for discussion of a paper in the absence of its writer. My "worthless" memory has allowed to escape it the stupendous disaster that befel the Convention in 1885, when Dr. Emerson refused to join, but my memory *can* take me back one year to the time when, in the most outrageous language that has ever appeared in a photographic journal, Dr. Emerson condemned anonymous writers who did not happen to agree with him. How circumstances do alter cases!

I beg, sir, to apologise to your readers for the tone and length of this letter. I know it is in a sense undignified, but there is no

use trying to amputate a thigh with a penknife. Dr. Emerson may make tracks to scalp me—if he can find anything to lay hold of—and "F. G. S." may lie in ambush with his rusty blunderbuss behind any hedge he likes. I hope to go on my path fearless and unscathed. I regret now that I did not leave the pestilent virus of "F. G. S." to consume its own pabulum and perish, but having begun the germicide treatment I had to carry it on.—Yours, etc.,

ANDREW PRINGLE.

SIR,—"F. G. S." has been challenged to quote from Mr. Newman's paper evidence in support of his statement that the paper was a personal attack on Dr. Emerson. He has failed to substantiate his statement in the slightest degree.

He finds it more convenient to shift his ground, and now states that the main question is "Is the Convention a Success; and if not, why not?" He further says that Mr. Pringle and I have entirely evaded it. If anyone will be good enough to look again at the first part of my last letter, they will see how far this latter statement is true, but as a matter of fact "F. G. S." did not put the question at all. He has himself begged the question all through his remarks by making a number of assertions to the effect that it was not a success. Doubtless the *dicta* of an anonymous writer so very free from animus as "F. G. S." will carry so much weight and meet with such wide acceptance that we ought to look upon the Convention as entirely crushed, but perhaps some of us may be allowed to retain a little hope for the future of an association which can secure the support of even half the men whose names I mentioned in my last letter, and which had for its President, in 1889, one of the most widely known amateurs in the world, and will have for its President in 1891 one of the very best professional landscape photographers of the present time. Mere numerical strength is not a very good criterion of the real strength of a movement, but even in that respect we are not so badly off as "F. G. S." would like to make out. At each of the last four meetings we have had not fewer than 120 members, *apart from those drawn from the immediate locality of the meeting*. The local members, of course, vary greatly in numbers according to the locality; they have, I believe, on three occasions numbered more than 100, but at the last meeting were much fewer. The British Association considers nearly every subject under the sun, and the average number of its permanent members during the last five meetings has been 906, giving an average for each of its eight sections of not quite so many as the average number of the non-local members of the Convention. The *associates* of the British Association are drawn (like our own local members) from the place where the meeting is held, and vary greatly from year to year. Each section of the association contains a comparatively small fraction of the total number of people concerned with that branch of study, but its members are representatives of the leading workers in the subject. That is all we should think of claiming for the Photographic Convention; and that we are entitled to claim so much will, I think, be admitted by any impartial photographer who reads the list of members of our Council and the names which I quoted in my last letter.

"F. G. S." contends that the Convention has no right to speak in the name of photographers generally or to legislate for them. In this respect is he not—

"Like Miss Nancy Baxter,  
Refused a man before he ax'd her,"

as the old country rhyme says? I was not aware that the Convention had ever ventured to speak in any name but its own, nor has it asked photographers to do anything more than accept the reports of its Committees on their own merits. It will be observed that "F. G. S." himself claims to be the exponent of the views of "most people." It does not follow that the claim will be allowed.

### MR. NEWMAN'S PAPER.

"F. G. S." objects to the application of the term impertinence to his suggestion that Mr. Pringle or the Convention Council had arranged for an attack on Dr. Emerson because some long time ago the latter had declined to join the convention. Anonymous writers often do object to their assertions being called by their right name. I will go further, and say that the suggestion was a gratuitous insult, that no right-feeling man would have made it at all, and that no one whatever was justified in making it except over his own name.

Mr. Emerson's letter I read with considerable surprise. He



cannot reasonably expect that his published writings, themselves not characterised by mildness, should be any less open to vigorous criticism than those of anybody else, and he must have a strangely constituted mental system if he imagines for a moment that the fact that he declined to join the Convention movement in 1885 (before it had taken definite form) has anything whatever to do with a paper read before the Convention in 1890. I have already stated that such a supposition is absolutely without any foundation in fact, but since "F. G. S." and Dr. Emerson seem to desire to make it a personal matter against Mr. Pringle, I may as well say here that the suggestion that Mr. Newman should be asked to read a paper came from me. We were in want of a paper on the artistic aspects of photography, and, as I said in my last letter, a paper by Mr. Newman had appeared in the *Photographic News*, and had seemed to me to be a very able and interesting paper. It happened that Mr. Pringle had met Mr. Newman for the first time a few weeks before, and he undertook to convey the request. These are the plain facts of the matter, and this is the sum total of Mr. Pringle's connection with the paper.

For the subject matter and style of Mr. Newman's paper, Mr. Newman is alone responsible. Moreover, when he wrote the paper, he was under the impression that Dr. Emerson was a personal friend of Mr. Pringle, and he wrote a letter apologising to Mr. Pringle for having written such severe criticism. This letter was in my hands at the meeting at which the paper was read, and when Mr. Newman returns to England he will doubtless allow it to be published.

In the meantime I wish to repeat in the most emphatic manner possible, that any statement or suggestion that the subject matter or style of Mr. Newman's paper was in any way influenced by the fact that Dr. Emerson declined to join the Convention; or that Mr. Pringle, or I, or the Convention Council made any suggestion to Mr. Newman that he should make any adverse criticism of Dr. Emerson's ideas, writings, or photographs, is absolutely and entirely untrue.—I am, yours truly,

Leeds, August 2nd, 1890.

C. H. BOTHAMLEY.

SIR,—An innocent letter of mine seems to have been interpreted as an attack on Mr. Pringle, and various animadversions on the score of it being anonymous. No part of my letter, I think, can be called an attack on anyone. I simply as a reader of the *AMATEUR PHOTOGRAPHER* took up the cudgels on behalf of "F. G. S.," whom Mr. Pringle attacked; why I wrote anonymously was because I am perhaps more thin-skinned than others, and decidedly object to be abused and withered by sarcasm in print, and it seems to me that nowadays few can differ from anyone else in print in a civil manner. To point my remarks, I think that Mr. Pringle's letter was needlessly sarcastic.

I see the *Practical Photographer* says, "Imagining and Imagining, mainly an attack on Mr. Emerson."

I do not hold with Mr. Pringle that it is a matter of fact, but that it is a matter of opinion, but as this letter is simply on the score of anonymous communications, I will say no more on the original subject.—Yours, etc.,

E. F. BECHER

(Major, R.A.; and one of the Hoi Polloi).

Naval and Military Club, Aug. 1st, 1890.

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#### SENSITIVENESS OF PLATES.

SIR,—In order to prevent misunderstanding, kindly allow us to make a few remarks in reply to Mr. Hussey's letter. Contrary to his impression, we have always most strongly deprecated the adoption of the wet plate as a basis for the estimation and comparison of sensitiveness, and never having had occasion to make a really accurate estimate of the sensitiveness of a wet plate, any reference we have made to the subject has been essentially approximate. In proof of this we need only quote as follows from our paper on the "Actinograph," which will be found in the *Photographic Societies' Reporter* for April, 1889. In this paper we said, "It has been customary hitherto to compare plates of different rapidities with the collodion wet plate as a standard, and modern dry plates are spoken of as being so many times the speed of wet plates. Apart from the fact that the majority of photographers of the present day have no experience whatever of wet plates, that these alleged speeds are otherwise most arbitrary and unreliable, and that wet plates themselves vary in speed, the system of referring one plate to another as

standard is bad." Our aim has all along been to establish a better method of comparing the sensitiveness of different plates, and, to quote from our recently published paper, "We have based our method on the measured effects produced by a given unit of light, excluding the influence of alterations in development," and this we consider the only rational way of dealing with the subject. Our paper on "Photo-Chemical Investigations" does not even refer to wet plates, and if Mr. Hussey wishes to know more of our method of estimating and comparing the speeds of plates, we must refer him to this paper.

We should here like to express our thanks to Mr. Watts for the concise and excellent abstract of our paper which you have been good enough to publish in the *AMATEUR PHOTOGRAPHER*. We only regret that he has omitted all mention of what we regard as the outcome of our practical and mathematical investigation, and which can be stated in extremely simple language, viz., that the amount of silver which is affected by the light at any moment of the exposure is proportional to the amount of light absorbed by the unaltered silver bromide still present on the plate. This statement seems to us almost axiomatic.—Yours truly,

HURTER and DRIFFIELD.

August 2nd, 1890.

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#### PACKING DRY PLATES, ETC.

SIR,—It is with much interest that I have read the correspondence on the above subject, and I thoroughly believe that the method mentioned by Mr. Venn, in packing the plates "film to back," is the best, provided the backs of the plates are not "splashed with emulsion." I have always packed my plates by this method, and have never had a breakage in travelling or a mishap in development. The plates I generally use are Mawson and Swan's, and I have never found these plates "splashed with emulsion on the back," and have found them perfect in every respect, with the exception of some which have "come out" covered with spots in the half tones. The cause of this I can only account for by saying that these plates were all interposed with tissue paper, and they had been lying by some time packed in this manner; but I have never had any failures with the plates packed without the interposing of tissue paper. My opinion is that plates are only damaged by the interposition of this paper where they are kept packed some time in this way, and therefore any impurities in the paper have time to sufficiently act on and damage the film. The next best and safest plan for packing plates where the film to back cannot be resorted to (owing to emulsion being splashed on the back of the plates) is undoubtedly the method used by Messrs. Edwards, Fry, and a few other plate-makers, in which "grooved boxes" are used to hold the plates.—I am, etc.,

D. G. GORDON.

SIR,—I should like to offer some remarks with regard to "Mr. A. E. Venn's" letter on "Packing Dry Plates," in your issue of July 25th.

Packing dry plates film to film (in contact) is to be deprecated on all scores. It is really inconceivable to my mind that plates packed in this way should not be seriously injured. The other way, suggested by Mr. A. E. Venn, of packing the plates film to back I consider hardly any better, as I should think the slightest trace of emulsion mark on the back of a plate—and I have not yet seen a single plate without such—will scratch the film of the plate that comes in contact with it. Although Mr. Venn's experience in this matter is in strict opposition to my arguments, I feel sure that neither plate makers nor photographers will readily adopt his suggestion.

The only safe ways of packing plates are either 'the well-known strips—such as, for instance, the Ilford Company use—or chemically pure paper of the size of the plates. If the latter plan be adopted, it is certainly the best to place the plates film to film, and to interpose a sheet of paper. Of course, paper for this purpose ought to consist of vegetable fibre only in its purest state. All bleached, dyed, or sized papers must be rejected.

Col. Verney and Mr. Venn must have been very unfortunate indeed in the choice of their "chemically harmless" paper. I cannot trace the cause of Col. Verney's failure; but as regards Mr. Venn's experience it is certainly remarkable that the paper he used had the strongest action on the edges, there producing stains and fog, which one should expect to be all over the



plate if the paper was at fault. From the scratches he observed, I conclude he used a sized paper.

Mr. Venn has been told that chemically harmless paper is a scientific impossibility. I think he has been misinformed. Every one knows that there are plenty of vegetable fibres to be obtained in such a degree of purity as to consist of nothing but pure cellulose and an extremely small quantity of silica. It is obvious that a paper manufactured from such a fibre must be chemically harmless; indeed, more so than the glass plate the sensitive film is on.

I use for the purpose of repacking my plates after exposure a "negative paper" sold by Mr. Geo. Wheeler, Manchester. I had exposed plates packed away for months between this paper without ever noticing the slightest influence. Below I give you particulars of an analysis I made of Mr. Wheeler's paper, from which it will appear that the manufacture of chemically harmless paper is by no means an impossibility. The paper referred to is neither bleached nor dyed nor sized, and seems to be manufactured without the use of any chemical whatever:—

4·737 g. of the air-dry paper, dried at 100 degs. C., showed a loss of 0·441 g., equal to 9·39 per cent. moisture. The same quantity of paper yielded, after ignition, 0·030 g., equal to 0·63 per cent. of inorganic residue, which shows a scarcely appreciable amount of alkalinity, practically consisting but of pure silica. This places Wheeler's negative paper in one line with the purest papers manufactured, *i.e.*, cigarette paper. Paper of such extraordinary purity cannot possibly have the slightest chemical action upon a sensitive plate, and will always be found absolutely safe in use.

Some of the strange experiences Mr. Venn is referring to might perhaps have nothing to do with the chemical condition of the paper used, but could be simply the result of mechanical pressure upon the sensitive films, as described by Warnerke (*Phot. Arch.*, 1881, p. 120), Abney (*Phot. News*, 1883, p. 381), Carey Lea, and others. Certainly if plates are "wedged firmly" or "tied up very tightly" we need no impure paper to fog the plate.—I remain, sir, yours truly,

July 30th, 1890.

CARL OTTO WEBER, Ph.D.

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#### ACHROMATIC SINGLE LENSES.

SIR,—My letter to your columns on the above subject has met with a response from the Editor of the *British Journal of Photography* in a paper entitled "Discursive Notes on Lenses," immediately following the leading article in last week's issue. He has disagreed with me avowedly in historical matters, that has called for a reply, in which I disagree with him on optical grounds. It is my duty to mention this to you and your readers, as the discussion was opened by me in your columns.—Yours faithfully,

THOS. R. DALLMEYER.

25, Newman Street, W., August 4th, 1890.

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#### PHOTOGRAPHY "EN VOYAGE."

SIR,—At this time of the year the following quotation from an article by M. Alfred Dutens, which appeared in *L'Amateur Photographe*, will be of interest to your readers:—

"All amateurs who take photographs when on their travels know what trouble they experience in an hotel room when after having developed and fixed a plate, it is necessary to submit it to long and numerous washings in order to expel the last traces of hypo. Also they generally postpone these different operations until their return home, and yet they would often be desirous of immediately developing those negatives about the success of which they are in doubt, and which they would be even willing to take over again in the event of their being failures.

"Here is a process which always succeeds with me, and which allows of development without fixing and without prolonged washings:—

"First dissolve in a glass of water a teaspoonful of bromide of potassium and a teaspoonful of alum, and when these two substances are dissolved add a teaspoonful of acetic acid. Then after having developed with hydroquinone, immerse the plate in the above-mentioned solution for at least five minutes, then take it out, rinse it with clean water, and put it aside to dry. From the moment that it is withdrawn from this mixture, it has become insensible to the action of light, and can be exposed with

impunity to the light of day and even to the sun. In the usual manner the drying of the plate can be hastened by immersing it in methylated alcohol. One has thus in less than half an hour a plate completely developed, perfectly dry, and quite ready to be carried about. On returning home it can be fixed according to the ordinary method, only it takes a slightly longer time to clear in the hypo, but none the less eventually attains complete transparency. The solution can be used for a great number of plates without being made afresh. It is composed, as is seen, of substances easily procurable everywhere where a chemist's shop exists, and which in any case are neither troublesome to carry on a journey, owing to the small quantities required, nor tiresome to weigh out, since all that is necessary is a small spoon. To amateurs who desire a more accurate formula we submit the following:—

Water	..	..	..	150 cubic centimetres.
Bromide potassium	..	..	..	5 grammes.
Acetic acid	..	..	..	5 cubic centimetres.
Alum	..	..	..	5 grammes."

Yours, etc.,

August 4th, 1890.

CYRIL S. COBB.

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#### LUMIERE PLATES.

SIR,—Your correspondent, writing on the above plates, seems to have had untoward experience with batch 2,664. I gather that two dozen of that brand have turned out bad, in addition to the four plates tested, thus making a total of twenty-eight plates spoilt by fault put down to the makers. I quite agree with your correspondent that batches of plates from the same factory do differ in speed and in quality to some extent, and it was with some apprehension that I turned to some boxes of Lumiere plates that I have, and especially so when I found the 2,664 was upon my plate boxes. I have now tested some of these plates by exposing on some groups in the bright light out of doors. The resulting negatives have not turned out foggy at all. I enclose two rough proofs, from which, as a judge, you will easily see the negatives are as good as could be wished, as far as the plate is concerned.

It seems, therefore, that Mr. Stabb may have another cause to look to than bad plates. It is quite possible that batch 2,664 may be more rapid than usual, in which case could not the fog result from unsafe light in dark-room? or could over-exposure be the reason? I should like so see the plates that "are fogged right out to the edges," and if Mr. Stabb is in your neighbourhood I could send my negatives to your office, but probably the prints will show that the plates of this batch that your correspondent complains of are good, after all.

It may be well to add that if the temperature of developer is over 64 degs. Fahr.—and it often is this weather—then fog is frequently produced from this cause.—I am, etc.,

Brighton, August 4th, 1890.

C. HETHTON LEWIS.

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SIR,—As the sole agents for the Lumiere plates, will you allow us to say, in reference to a letter of your correspondent, "John Stabb," in your last issue, that we are very much surprised at his experience, which seems to be unique, as we have been specially complimented upon the quality and uniformity of the particular batch 2,664.—Yours, etc.,

H. COOPER AND CO.

24, Greek Street, Soho Square, W., August 5th, 1890.

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#### DEVELOPMENT.

SIR,—In reply to "Snap-shottist," I confess I cannot account for the defects he speaks of in his Paget's XXX plates.

My wife uses this brand, and exposes the plates with the cap off and on, which in nine cases out of ten means considerable over-exposure, and although she uses the Eikonogen developer exactly in the same proportion as I do for my snap shots with the hand-camera, she manages to get most charming results, none of the defects "Snap-shottist" speaks of being visible. May not the fault be that the dish is not sufficiently rocked? Although this developer does not require so much rocking as pyro, yet to avoid pinholes *absolutely* I find it best to rock the dish well at the commencement, if not nearly throughout development.

To get the most detail out of an under-exposed plate, the time of development should not be less than fifteen minutes.



This, of course, means that a little less of Eikonogen should be used, otherwise the high-lights will gain density too soon.

I shall be glad to compare notes with any of your hand-camera subscribers, and also to send a few prints for inspection should any of them care to write me through you.—Yours truly,

H. WILKINSON.

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#### DEVELOPMENT.

SIR,—I don't know if your correspondent "Snapshottist" has tried my Eikonogen formula, which appeared in the *AMATEUR PHOTOGRAPHER* of June 27th. I have lately slightly altered the proportions, which are as follows:—

##### No. 1 SOLUTION.

Sulphite of soda (perfectly pure)	..	..	4 ozs.
Hot water	..	..	60 "

The soda should be dissolved in the hot water, then add eikonogen 1 oz.

##### No. 2 SOLUTION.

Carbonate of potash (need not be pure)	..	3 ozs.
Water	..	20 "

##### No. 3 SOLUTION.

Sulphite of soda	..	..	2 ozs.
Water	..	..	8 "

For use, add 3 ozs. of No. 1 solution to 1 oz. of No. 2 solution. For under-exposure add more of No. 2 solution. For over-exposure a good deal less of No. 2 solution; and for extreme under-exposure develop in this solution: 3 ozs. of No. 2 solution and 1 oz. of No. 1 solution; then, if after the plate has been fully developed and found wanting in density, add to the developer some of No. 3 solution, about 2 ozs., till the film is *perfectly* dead black in the developing dish. By no means use No. 3 solution during the actual development, as it retards it greatly. I use Ilford white and red label plates.—Yours, etc.,

J. W. P. GIBSON.

## Photographic References.

BY MAJOR J. FORTUNÉ NOTT.

### THE DARK-ROOM.

(Continued from page 51.)

THE canary or golden fabric now procurable of any dealer in photographic commodities can be employed as a covering for the dark-room window in place of fabric or paper ruby-coloured, and it will be found a comparatively safe light for any plates of an ordinary character. Moreover, it is the most pleasant light a photographer can work with, for it does not affect the eyes in the same way as a red light, and it enables him to watch the different degrees of density attained by the plates during development with much more accuracy than is possible when the light is being filtered through a ruby medium. Again, a certain amount of comfort is possible with the yellow light, for the various small articles required at different times by the photographer when at work are easily to be discerned without that groping about for them, and danger of breakage, which formerly existed when all but absolute darkness was considered an essential feature for a safe dark-room. This yellow light, however, must be used with caution, especially if plates showing a high sensitometer power are being manipulated. In such an event a red light is the safer, but by using an extra covering of the canary fabric, and handling the plates some distance away from the source of light, and by keeping the developing dish covered until development has made considerable progress, all danger of fog from the yellow light can easily be avoided, and the advantages it confers retained. Of course, if orthochromatic plates, or plates sensitive to the yellow rays, are being employed, a red light must be used, and even then care has to be exercised. A deep red of a brownish tinge is the best light recommended for this class of plate, and it should be remembered that a

properly constructed fabric or paper is a safer medium for the light than glass, even of a somewhat similar colour, which has a tendency to more readily admit certain rays of the spectrum liable to affect sensitive plates. When fabric is employed, whether yellow or ruby coloured, care must be taken not to splash it with acid water of any description, for in such an event the colour is affected, and light will be admitted in places of a dangerous quality for sensitive plates. Sunlight will also destroy the safe character of the colour, and some care should also be exercised in this respect. On the principle, therefore, that prevention is better than cure, a periodical examination of the safe condition of the fabric is recommended, and by retaining for the purpose a small piece of the material in its pristine condition any deterioration in colour can be easily discerned by making a comparison.

Every "dark-room" should possess some method of obtaining artificial light, for it enables work to be carried on in the evening. If gas is laid on, then the matter is a very simple one, for lanterns that can be used either to give white light or coloured as required, are easily procurable, and can be connected with the gas supply by means of rubber tubing sold for such purposes. If, however, gas is not available, then one of the many candle or oil lamps which are to be found advertised in the photographic journals will have to be resorted to; but none of these articles are pre-eminently satisfactory, for either the light is of a poor quality, or else such an excessive amount of heat and smell is generated in the room that intense discomfort ensues, even if more serious consequences, such as "frilling," is not experienced as a result.

Cleanliness is an important factor in all matters appertaining to photography, and in the dark-room it is an essential necessity, otherwise good work therein can never be accomplished. The tables must be scrupulously clean, the dishes without stain, the measures as bright as table glass-ware. Acid, elbow grease, and a love of neatness, natural or acquired, are the qualities required to keep a dark-room and its appliances fit for dealing with the delicately sensitive materials peculiar to photography. Dishes should, as far as possible, be utilised for only one purpose, and their distinctive character be marked in a conspicuous manner on the sides to prevent accidents. This rule, however, should not alter the fact that, when necessity compels, any dish chosen should be in a condition for its employment in any capacity required.

From our experience of dark-rooms and their fittings, we have formed the opinion that the tables or benches used for development are made much too low as a rule. They necessitate in consequence the operator stooping over his work or else trying to avoid doing so by always keeping one developing tray in his hand. Now, the constant bending down of the head and the unavoidable straining of the eyesight in the subdued light may, in some instances, produce that headache which many photographers complain of. In any case it is a fatiguing operation, and the necessity of resorting to it should not exist. If the operator in a photographic laboratory wished to experience pleasure in his work and to retain his faculties in a state suitable for the exercise of the utmost skill he possesses, then the condition under which he works is a matter that should receive attention, and every detail that may affect him or the materials with which he works should be so regulated as to yield the best results. In photography small details are frequently of great importance, and we advise our readers to always carry on their operations with as much comfort as they can manage to secure, for when the body is fatigued the best is not possible.

In the matter of water and its plentiful supply, the



majority of amateurs are at the mercy of circumstances over which they have but little control. Water, however, procurable in some way or another, is a necessity to the photographer, but it is possible to have too much of a good thing. Where it can be so arranged, the washing tables should not be placed in the "dark-room." This room should be kept as dry as possible, and constantly running water therein is not conducive to such a condition. To say nothing of its liability to give a worker who spends much time within its walls an attack of rheumatism, a damp room is an unhealthy room, and should be avoided.

There exists such a decided individuality in the method of working that it is useless to enumerate all the articles that a well-furnished dark-room should possess. The size of plates used, the class of work aimed at, the quantity as well as the quality of the photographer's work are all important considerations in this matter, hence it becomes a personal question, and an inventory of articles might be misleading, consequently we refrain from giving one. We may, however draw attention to the fact that work proceeds more expeditiously, and, as a concomitant result, more satisfactorily, if dishes are kept of various dimensions, and measures of different capacities, and the chemicals are secured in well-stoppered bottles so that their strength can be relied upon. A rule should be made and rigorously enforced, that everything should have its place and be kept in its place. A most useful appliance in a dark-room is a squeegee, for not only is it almost a necessity in certain work but for general purposes, such as cleaning dishes or glass plates, it will be found a most handy contrivance. Another and concluding piece of advice we venture to give our readers, and that is never allow your dark-room to degenerate into a lumber-room or a depositing place for rubbish of any description. In many ways an accumulation of this nature is injurious, and by collecting dust or giving off fumes, may even affect the work which has to be performed in the room itself.

(To be continued.)

## The Ferrrous Oxalate Developer.

By D. E. GODDARD.

UNTIL recently there were two recognised developers used by photographers, pyro and ammonia, and ferrous oxalate, commonly called the iron developer. The former is the one generally used in England, the latter is the standard developer preferred on the Continent.

Our American friends suggest a modification of the pyro formula by substituting the fixed alkalies, potash, or soda, or their carbonates, for ammonia. Many workers in England, well represented by the Rev. Dr. Aston, have done splendid work with this modified formula. There is no doubt that it presents advantages which should be carefully studied by experiment. Recently a new developer was introduced to the notice of the photographic public. It was predicted that quinol would soon take the place of pyro in conjunction with the fixed alkalies or their carbonates. The negatives are quick printing, and resemble in appearance those produced by ferrous oxalate. Many prefer it for transparencies and lantern work. The rapid advance it has made in the estimation of the photographic public is remarkable, but whether it will ever supersede the use of pyro is open to doubt.

This paper treats of ferrous oxalate, which is our favourite developer, and from long use and considerable experience we are satisfied with it for general work. We do not claim that it is superior to pyro or quinol, or that it has the elasticity of either. We also candidly admit that there are conditions and subjects in which it must retire in favour of

both. We have used all three developers, but most of our work has been done with the iron developer.

We consider that ferrous oxalate is specially suited to the beginner. Its stability and efficiency render it a standard developer, by which the student can work with certainty, especially if he sticks to one brand of plate suited to it. It is for the beginner that this paper is written, not for the advanced student.

We shall try to describe the manipulation requisite, and also notice the principal difficulties that will arise. If we can remove any stumbling-block, and give a few hints that may help some brother of the camera over the rough and broken ground that often disgusts and disappoints him when for the first time he enters the magic circle of the mysterious dark-room, we shall not consider that this paper has been written in vain.

The first thing is to prepare the stock solutions. The usual directions given are as follows:

### No. 1.

Potassic oxalate (neutral)	..	..	8 ozs.
Distilled water, at 212° Fahr.	..	..	20 "

This solution should be rendered distinctly acid by oxalic acid allowed to settle. Decant or filter when cold, and keep in a well-corked bottle.

### No. 2.

Ferrous sulphate (pure)	..	..	12 ozs.
Distilled water, at 212° Fahr.	..	..	20 "

Render acid by a few drops of sulphuric acid, and filter while hot.

### No. 3.

Potassic bromide	..	..	1 oz.
Distilled water..	..	..	6 ozs.

When dissolved, make up to 9 ozs. This is a 10 per cent. solution.

### No. 4.

Sodic hyposulphite	..	..	16 ozs.
Water ..	..	..	80 "

Made distinctly alkaline with ammonia.

### No. 5.

Potassic permanganate	..	..	1 gr.
Potassic carbonate	..	..	10 grs.
Distilled water..	..	..	20 ozs.

Keep this in a stoppered bottle.

The potassic oxalate and ferrous sulphate solutions are saturated, but on cooling, as a large quantity of both salts are deposited as crystals, we think it better to make the saturated solutions with cold water, especially with the iron solution. This is easily done by tying the salts in muslin, and hanging each in their respective vessels of water. Potassic oxalate will keep indefinitely. We have always found a difficulty in keeping the ferrous salts. There are two methods by which we have succeeded in preserving it:

(1) We can procure a glass-stoppered bottle with a tap inserted about an inch from the bottom. Fill this to within a short distance from the stopper with the solution (which ought to be of a pale green colour), pour in an ounce or two of paraffin, replace the stopper, and the fluid is drawn off as required. It will keep good to the last drop.

(2) There is a simpler plan which we have followed for some years. We fill a number of bottles, generally of six to ten ounces capacity, and cork with the best dispensing corks. The solution keeps quite as well as in the more expensive bottle.

It is always advisable to keep plenty of stock solution on hand, as it will be found very inconvenient to wait until prepared.



We now proceed to notice the details of the process.

The formula generally recommended in books is for half-plate (1 to 4), viz.—

Potassic oxalate..	..	..	..	4 ozs.
Ferrous sulphate	..	..	..	1 oz.
Potassic bromide	..	..	..	25 mins.

being half a grain to each ounce of developer.

This is a powerful developer, and will bring out everything that can be brought out. We, however, seldom use this formula, for two reasons:

(1) We prefer slow development.

(2) We often found that ferrous oxalate was deposited as a fine yellow precipitate; especially is this to be looked for after two or three plates have been passed through the same bath. This is troublesome to get rid of by washing; the best way is to redissolve it in an excess of potassic oxalate.

Our normal developer for a correctly exposed half-plate is—

No. 1.				
Potassic oxalate	..	..	..	5 ozs.
Ferrous sulphate	..	..	..	1 oz.
Potassic bromide	..	..	..	30 mins.

being half a grain to each ounce of developer.

It is very seldom that with this formula we have any mishap.

We think that, provided exposure has been correct, this normal developer gives the best negatives. It is, however, very seldom that we use only one bath—we make up bath

No. 2.				
Potassic oxalate	..	..	..	5 ozs.
Ferrous sulphate	..	..	..	1 oz.

No bromide.

To this bath the plate is transferred and finished. We find that in all cases of uncertain exposure development in two baths, though slower, is perfectly under control.

We also think that during development the use of a rocking table is to be desired. The average time in No. 1 bath, freshly made, is from ten to fifteen minutes for a correctly exposed plate, but longer after each plate has passed through it. Care must be taken to avoid two errors, over-development and under-development. The photographic image comes out so brilliantly that one might be led to suppose that the plate was fully developed, only to find, as we have often, that after fixing we have a weak negative. On the other hand, if with some plates we press development till there is much detail out on the back, while it has disappeared from the front, we shall probably find that we shall have a very dense negative that will take a long time to print.

As a rule we continue development until detail is more or less veiled over. We have the idea that there should not be absolutely clear glass on any portion of the negative, though many hold opinions to the contrary.

At one time we used to wait till very much of the detail was visible on the back of the plate. We found, however, that this is no criterion that can be relied upon as to development. No absolute rule can be laid down; it depends entirely on the make of the plates. Some plates may be developed for a long time without any detail appearing through, and yet produce very good negatives, while others develop quickly through, and if development be stopped at this stage, would yield very thin results.

Thus far we have been dealing with normal or correct exposure. In the experience of every student circumstances will occur which will render cases of over and under exposure more or less frequent. If we find in such cases

that ferrous oxalate cannot be modified to meet the necessities of each case, we should have no alternative but to give it up.

We will take over-exposure. There are several methods by which development can be slowed:

(1) By increasing the bromide. This, we think, is perhaps the simplest and best. Instead of half grain per ounce of developer we can increase the quantity. It must not be used too freely, as injurious effects may follow, and detail may be injured.

This plan is good where the error in exposing has not been excessive.

(2) By adding the ferrous-sulphate gradually. We have often been surprised at the small quantity of iron that will give a good negative. This has its parallel in pyro development, when ammonia is added little by little. We have often found that 4 drachms of ferrous sulphate will produce very good results. We were much pleased with a formula that appeared in *Photography "Almanack"* for this year (1890). So small were the proportions that we did not expect good results, and made it up more from curiosity than anything else. We gave normal exposure, and the result surprised us.

We found that development took twenty minutes, and that thirty minutes would have been better, as the negative was thin. Intensification set matters right. The formula in question is as follows:—

No. 1.				
Potassic oxalate	..	..	..	2 ozs.
Ammonium chloride	..	..	..	40 grs.
Citric acid	..	..	..	2 drms.
Water	..	..	..	20 ozs.

No. 2.				
Ferrous sulphate	..	..	..	$\frac{1}{2}$ oz.
Alum	..	..	..	90 grs.
Water	..	..	..	20 ozs.

There is one objection to this; the No. 1 solution will not keep. We found white flocculent particles floating about, probably owing to decomposition of the citric acid. We therefore prefer to add potassic bromide, say half a grain to each two ounces of the mixed developer, which is composed of equal parts of No. 1 and No. 2.

(3) The developer may be slowed by the addition of *distilled water*.

We think these various modifications will provide for any case of over-exposure that will be met with in ordinary work.

We must now consider under-exposure, and at once admit that when a plate is very much under-exposed, it is hardly worth the trouble of development, and the sooner it is consigned to the waste plate box the better. If, however, a plate has received nearly the exposure requisite, the question presents itself, How shall we modify the ferrous oxalate?

We stated the normal developer generally recommended in books as one to four. This is very powerful, and can be made more so by omitting the bromide. It will be still stronger if the proportion is one to three, but the operator must not be surprised if ferrous oxalate shows itself.

It has been suggested to add a few drops of the fixing bath to the developer, or twenty minims to each ounce of

Sodic hyposulphite	..	..	..	20 grs.
Water	..	..	..	1 oz.

We have often done this, but we are convinced that it should not be added in larger quantities than two minims at a time, and not more than ten minims to each ounce of developer used. It is a fact that the addition of hypo



within judicious limits will bring out detail to a very remarkable degree. We once tried a very weak solution of hypo on a half-plate. In the dark-room we accidentally only put half the plate into the bath; the difference in development was very striking.

We have been much interested in reports from German operators that appeared in the *Photographic News* on 30th May, 13th June, 11th July, and 18th July.

It is evident that the Germans still prefer their own formula. Some for instantaneous work use a preliminary bath of

Hypo .. .. .	Size of a pea.
Water .. .. .	1 litre.

Soak plate for one minute.

Again—

Hypo .. .. .	1 part.
Water .. .. .	2,000 (or even 5,000) parts.

This bath of hypo is only used occasionally.

The same processes of washing after development, fixing in hypo, the slight washing, the alum bath and subsequent prolonged washing, are the same as with other developers. It is highly important that every trace of hypo should be removed from the film. This may be ascertained by adding a few drops of the potassic permanganate solution to a sample of the last washing. If the pink colour disappears there is still hypo in the film, and the washing must be continued till the pink colour stands. It should be remembered that negatives produced by this process should always be allowed to dry without the aid of heat to hasten the drying; if used, big black tears will roll down the face of the negative. We speak feelingly, having once lost a batch of half-plates, by standing them film inwards against the wall of the kitchen chimney-piece. It sometimes happens that when hard chalky water is used, the dry film is white with an almost impalpable deposit. This may be removed by passing it through a bath of

Sulphuric acid .. .. .	60 minims.
Water, distilled .. .. .	20 ozs.

Well wash, allow to dry as before. If it is thought necessary, varnish, and put away in a paper envelope on which is recorded the number and all particulars relating to it.

We have referred to Intensification; we must rapidly sketch out this process, and also its converse, Reduction.

It sometimes happens that, from incorrect exposure, or misjudged density in development, a negative, although full of detail, is so thin as to be useless for printing. The process by which it can be brought up to printing density is called intensification. After having taken a proof, place the thin negative in water for ten or twenty minutes; it must then be transferred to a bath of mercuric chloride. This is a most violent irritant poison, and great care must be observed in using it. It is a good plan to avoid any jugs, plates, or dishes that are required for household purposes.

There are several formulæ; the one we use is always prepared twenty-four hours before using, viz.,

Mercuric chloride .. .. .	100 grains.
Ammonium chloride .. .. .	100 "
Water .. .. .	20 ozs.

This may be used over and over again; in fact, we think it improves by keeping.

The negative is placed in this, and will soon alter in colour; it will become grey, and finally quite white. If only a slight amount of intensification is required, it should be removed before the white stage is reached. It is best to place the grey or white plate into a bath of—

Ammonium chloride .. .. .	160 grains.
Water .. .. .	20 ozs.

for ten or fifteen minutes, then well wash for at least an hour in running water. It is then ready for the second process. There are several formulæ; some use

Ammonium '880 .. .. .	1 oz.
Water .. .. .	20 ozs.

We have found a 50 per cent. solution of sodic sulphite very reliable. In Edwards' intensifier we have a valuable formula. There is yet another that gives very satisfactory results, recommended by Mr. H. P. Robinson in his recent communications to the AMATEUR PHOTOGRAPHER, viz., a strong solution of sodic carbonate, or common washing soda.

When the well washed plate is placed in either of the above solutions, the film begins to blacken from the edges, and will soon be black all over. If directly this occurs the reverse of the plate be inspected it will be found that the white still shows through. It must be kept in the bath until on inspection no trace of the white produced by mercury is seen. All that is now required is well washing. The success of this process depends entirely on the removal of every trace both of hyposulphite of soda before applying the mercuric salt, and also the entire removal of the latter before the blackening solution is applied. We find that the best, the most reliable, and the cheapest eliminator is water.

Now for *Reduction*. Some negatives are pressed so far in development that so great density is obtained that nothing can be seen on the printing paper for hours, it may be days, although exposed to strong direct sunlight.

To reduce such a negative to printing condition, make a solution of hypo as for fixing, but without any alkali.

Take a few crystals of potassic ferricyanide, cover them with water, pour this off, and add a fresh quantity, say one ounce.

Soak the plate in water, pour a few drops of ferricyanide solution into the hypo bath, well stir, and then immerse the plate. The negative will soon get thinner. If the bath loses its yellow colour and becomes a pale blue before the process is completed, remove it, add more of the potassic salt, rock bath so as to well mix, and replace plate.

The stronger the potassic salt the more careful attention is required, as reduction goes on more rapidly. When finished, wash well and allow to dry.

We have now carried the student through the various processes of negative making with ferrous oxalate. We will sum up some leading hints that will save many failures if remembered:

(1) The solutions of potassic oxalate and ferrous sulphate must be saturated, and made acid. We think it better to use cold distilled water with all stock solutions.

(2) The ferrous sulphate must always be poured into the potassic oxalate.

(3) The limited and judicious use of potassic bromide is valuable; an excess is injurious.

(4) The use of hypo in the developer requires the greatest caution.

(5) Normal developer will give the best results with correctly exposed negatives. Development in two baths will produce the best results in over-exposed plates.

(6) The success of intensification depends entirely on the thorough washing of the negative after each process.

(7) No success can be obtained in any photographic manipulation without scrupulous attention to all the details of each individual stage through which the plate passes from the moment it is taken from its box till it reaches its final resting-place a finished negative.

The processes described in this paper are those we in-



variably use. We have recommended nothing but what in our experience has proved successful. We have a strong conviction that a man succeeds best with the tools he is most accustomed to use, and supposing the operator to be equally at home with pyro, ferrous oxalate, or quinol, he will, excepting in some special cases, produce equally good work with either.

## The Stereoscope.—VII.

BY VALENTINE BLANCHARD.

We have now, we believe, gone sufficiently into the theoretical and historical portion of our subject, and desire those of our readers who are sufficiently interested to follow us through its practical details. At the commencement of these articles we stated that their object was the resurrection of the stereoscope. We hope we have been successful in awakening interest, and that we have a large number of readers eager to follow us patiently while we attempt to show them how to successfully produce stereoscopic pictures.

With the ordinary  $7\frac{1}{2}$  by 5 camera very little alteration will be necessary. It will require an extra front to carry a pair of single lenses of about 6 inch focus. The rapid rectilinear lenses, such as are attached to the quarter-plate detective cameras, will answer equally well, but they are more expensive and require most careful selection to get them of exactly the same focal length. For architectural subjects, the latter will answer best, as also for very rapid work, but for ordinary landscapes the single lenses are not only the cheapest but also the best, for the image is brighter, and there is no danger of a central spot of greater intensity, known as *flare spot*, which frequently occurs in double combination lenses. The only alteration really necessary is a carefully fitted partition dividing the camera exactly in half. This had better be made by an experienced camera-maker, for it needs adjusting to the camera with great care so as to be flexible and at the same time perfectly light-tight. All the old cameras of the size named above were fitted with this moveable partition, but since the decay of the stereoscope it is only furnished when specially ordered. The extreme sensibility of modern dry plates renders the proper fitting of this partition of the greatest importance, and therefore we call special attention to it; for any carelessness at this point will result in foggy pictures. It is well to remember that *light does not travel round corners*; from this it follows that whilst it is most important that the partition should come as close as possible to the dark slide—of course, not to interfere with its free motion—the same importance does not attach itself to the position of the partition near the lens. The important bearing of this fact will be seen later on when we come to speak of one lens on a sliding front for the production of stereoscopic pictures. However, for the moment, in order to test the efficacy of the partition, no matter whether home-made or the production of a first-rate camera-maker, cover up one of the lenses with its cap, and, with the head carefully covered with a light-tight focussing cloth, minutely examine the dark half on the focussing screen. If it is at all grey and not perfectly dark, throw back the screen and again cover the head and examine what should be the dark half. If the sides near the eye are at all grey from reflected light there is something wrong in the fitting or the arrangement of the partition, and naturally a foggy picture would result after exposure. In speaking of the twin-lens camera we have mentioned  $7\frac{1}{2}$  by 5 as the best size, but as the stereoscopic pictures are usually  $3\frac{1}{4}$  ins. square, it will be seen there is just room on a half or  $6\frac{1}{2}$  by  $4\frac{1}{4}$  plate, for two pictures side by side. It would be better, however, when the half-plate camera is used for the work to

limit the width to  $2\frac{3}{4}$  ins., or 3 ins. at the outside. This just gives margin enough to allow for trimming the pictures to the requisite size.

Speaking of trimming the print reminds us of an important point which may be best considered here when dealing with the twin-lens camera. We have said that each eye sees its own picture, and that the right eye picture must be offered to the right eye when looking at it through the stereoscope. Of course, this applies to all geometrical drawings made on this principle, but when using the camera, another important principle has also to be dealt with, viz., the fact that the lens inverts the picture. Clearly it follows that if, when looking at the image on the ground-glass, we see the sky in the place of the ground, and the ground in the sky—in fact, when we see the picture bottom upwards—it



FIG. 7.

equally follows that the right-hand side has become the left, and the left-hand side the right. Each lens turns the picture on its own axis, and therefore the right-hand picture has become the left, and the left-hand picture the right.

To put the matter right it becomes necessary to transpose the pictures in mounting them, or they would become *pseudoscopic* or false relief pictures, and for this purpose, and to make mistake almost impossible, we have an exceedingly simple plan. Put a faint pencil mark in the middle of the twin pictures, but on a dark part for fear of showing through when mounted, as shown in diagram, fig. 7. When the prints are trimmed for mounting, take care that these lines never touch again. They should now come to the edges, as shown in fig. 8. By following this extremely simple method the possibility of error in mounting is reduced to the smallest dimensions.

Now, we desire the reader to mark well this important fact, that each twin picture is inverted or turned on its own axis, for by its means we can, when making transparencies,

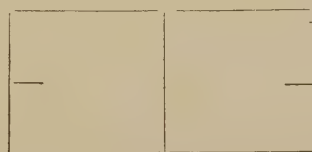


FIG. 8.

by the employment of the camera and twin lenses, again turn them, and bring them right once more. A moment's reflection will show that if one operation of the lens turns the right to the left it surely follows that the operation again repeated will restore the picture to its normal condition. In other words, the right-eye picture will be offered to the right eye, and *vice ver.a.* Therefore no cutting of the glass transparency becomes necessary, for the pictures are in their proper position.

How little this principle is understood is shown by the fact that the writer had the greatest difficulty in convincing one of the most distinguished photographers in England—one who twenty years ago was famed for his stereoscopic pictures on paper, but who had not taken up the production of stereoscopic transparencies on glass—that they could be made to come right for the stereoscope without cutting them in order to transpose them; and even when the writer



assured him that he had produced hundreds in the twin-lens copying camera, which will be described later on, he was only then scarcely convinced.

Some readers will probably say, "Of course we know that the negative is inverted, but when the print is made on paper it comes right again." Naturally this is true when a single picture is taken; but when two pictures are taken side by side by two separate lenses, each picture is *separately* inverted, and a print from such a negative, whilst it puts back the right side of the view to the right side in the print, does not change back again the relation of each print to its neighbour, which has been disturbed by the lenses, and nothing but the method of transposition, made clear by the diagrams above, can do this, except by again copying in the twin-lens camera.

(To be continued.)

## Reviews.

*A Casket of Photographic Gems.* By W. Ingles Rogers (Piper and Carter; 1s.)

This book is compiled from the *British Journal Almanac* principally, the contents comprising six parts: "In the Field," "In the Dark-room," "In the Printing-room," "Lantern Dodges," "Experiments," etc., and "Miscellaneous." The author claims that the book contains "500 dodges, receipts, entertaining experiments, etc." It is to be regretted that he did not acknowledge the source from which he got together his "gems." A very complete index accompanies the book, which will be found useful and entertaining.

*Photogravure.* By W. T. Wilkinson. (Iliffe and Son.)

This book is in a handy form, and sets forth the process of photogravure, which the author says "offers to amateurs a means of overcoming all difficulties, the production of the final proof not being dependent upon the light, that adjunct being only required for a very short time in making the plate. At each stage of the process the artist can modify any errors or shortcomings inherent in the translation of colour into photographic monochrome, so that the result will show more of the artist's interpretation of his picture than is possible with an ordinary photographic print." The author further adds that "the production of a photogravure print may be divided into six stages, the negative, of course, being already made." The six stages are carefully described, also the apparatus and material required. Chapters are devoted to "Preparing the Negative," "The Carbon Transparency," "Laying the Ground," "The Carbon Resist," "Printing from the Plate." A very excellent photogravure by W. L. Colls is given as a frontispiece. The book is clearly written, and will help many who think of "biting their own plates."

*The Photographic Instructor.* By Professor Chas. Ehrmann, edited by W. J. Lincoln Adams. (Scovill and Adams Company, New York.)

This book has reached a second edition, and has been thoroughly revised to date. Additions have been made on "The Nature and Uses of the Various Chemicals and Substances Employed in Photographic Practice." The following lessons or chapters are added to, viz.: "The Dark-Room," "Developing," "Orthochromatic or Colour-Sensitive Photography," "Stereoscopic Photography," and "Photographing by Artificial Light." "The Instructor" is a very admirably compiled work, and in the hands of Professor Ehrmann the work of instructing is ably carried out. The "appendix" is most complete, treating entirely of photographic chemicals

and their use. The book has two illustrations; the first "At Chautauqua," and the other an excellent portrait of the Professor in his laboratory."

*The Stereoscopic Manual.* By W. J. Chadwick. (John Heywood, Manchester.)

This manual is the outcome of a series of articles contributed to the *British Journal of Photography*, 1888-89. The book will be of considerable interest at the present time. The author describes "Binocular Vision," "The Theory of the Stereoscope," "Apparatus," "Cameras," "Lenses," "Paper Slides," "Transposing and Mounting," "Transparencies on Glass." Those who are practising stereoscopic photography cannot do better than procure a copy of this little manual, and study it carefully.

*New Holidays in Essex.* By Percy Lindley.

This book introduces us to many pretty bits of Essex which are yet untrodden by the amateur photographer; it is illustrated with many sketches, and gives the most complete particulars of "rail and walking routes, boating, fishing, and shooting notes." Any one contemplating a walk through Essex should not make a start without this very handy little book.

## A Photographic Sketch of 1856.

MILVERSTON WORTHIES.\*

IN passing by Miss Wolsey's shop yesterday, I perceived a frame full of likenesses hanging at the door-post. In the centre was the counterfeit presentment of Miss Wolsey herself, in all the crispness of Sunday silk gown and best cap; two military officers flanked her on either side. Mr. Garnet was over her head, and Mr. Dove below her feet, while four infantine groups occupied the angles.

So public an exposure of well-known characters surprised me.

"Never, never," I said to myself, "would Lydia Cleverboots make her countenance the gazing-stock of a market-place!" And, with rather more than my usual severity, I entered the bun-shop to ask what it all meant.

Miss Wolsey did not allow me time to open my mouth, but said:

"The celebrated photographic artist, Mr. Buck, is in the town, Miss Cleverboots. You must see him. You will be delighted."

I replied, "Oh, indeed!"

This simple exclamation, with the tone I threw into it, immediately checked Miss Wolsey's vivacity. She saw I was slightly ruffled, and she endeavoured to propitiate me by adding:

"There is no harm in it, Miss Cleverboots. Many respectable people have been done."

"No harm!" I ejaculated,—"no harm! when men in dignified professions, fathers of families (I alluded to Mr. Dove), allow themselves to be posted up on walls like signboards, or circus-bills! Oh, Miss Wolsey!" I have a respect for the woman and I eyed her with a mild rebuke.

"I will have mine taken down, if you think it improper, Miss Cleverboots. I am sure I meant no offence to anybody," she said, sadly.

I did not suffer the impression I had made to pass away, but rejoined sharply,

"When you are a public character, Miss Wolsey, then be exhibited, and not before;" and I walked with a firm step out of the shop.

At the corner by the church I encountered Miss Prior, fresh from her early gossip.

"Have you been done, my dear?" she exclaimed, without exchanging the usual compliments; "isn't it marvellous?"

I asked stiffly "what she meant."

"From two-and-sixpence upwards, single figures; and every additional figure one shilling extra," was her reply. I wished her good morning; for she was in a gasping state of mental con-

\* From *Household Words*, No. 332, August 2nd, 1856.



fusion, owing, probably, to an overfulness of news; and I walked on to Mr. Dove's.

Mrs. Dove was dressed to go out, with her tract-basket in her hand, and the two girls with their best hats, and baby in his feather and scarlet coat, were all undergoing a full parade examination previous to accompanying her. I saw at once some great undertaking was contemplated. Mrs. Dove is a favourite of mine. I knew her, an extremely pretty girl, before her marriage, and have always been in the habit of giving her advice about the training of her little ones (the eldest, Jenny Polly, is my godchild). Therefore I was not surprised when she exclaimed, grasping my hand in her cordial way,

"Dear Miss Lydia, I was just coming over to your house to consult you about the children's pictures. Must I have them done in a group or singly? Miss Prior has given me such an account of Mr. Buck's skill in taking babies, that I was determined little Alfie should be done too."

"The whole town seems to have run mad about these photographs," I replied. "Do you like such portraits? For my part, I think them very displeasing. All those exposed outside the bun-shop look as black as ink."

"Miss Prior said they were exquisite, and Mr. Dove was done yesterday. Go with us, Miss Lydia, and you will see. Miss Prior will be waiting for us there now by this time. I told her to go and prepare Mr. Buck for the arrival of a party," said Mrs. Dove.

I consented.

The photographic apparatus was set up in Miss Wolsey's garden, a bit of ground about 16 ft. square. It consisted of a lofty board, over which was stretched a white sheet; a kitchen chair stood with its back to it, and, close by, a circular deal table, covered with a crochet-work antimacassar. Opposite was a machine, supported on a sort of mahogany scaffold. It had one large round glass eye, with a huge black patch of cotton-velvet hanging over it. I had never seen anything of the kind before; but, as I never display my ignorance except when I cannot help it, I looked round reflectively, and was silent. Not so the youthful Doves, whom, Mr. Buck remarked, were not at all in a photographic humour, for they capered about like dancing dolls, instead of being quite still. In one corner of the garden was a dejected plumtree, and, on a bench beneath it, were two beehives, with all the bees in full buzz. Alfie wanted to touch them, and screamed for a full-sized bum-bee that had settled on Mr. Buck's bottle of what Miss Prior called the chemicals, until his distracted nurse pacified him with a bun, while Jenny Polly, and Lucy tugged at their mamma's skirts, or made her the centre of a merry-go-round, and refused to be caught to be inducted into the chair.

I perceived that somebody must take an initiatory step, for the artist stood looking gloomily bewildered in the confusion; therefore I went forward and announced that I would be done first, and took my seat in the chair. I felt a curiosity to see my own features portrayed, for, though I have reached the seventh age of woman, I had never before been taken in any style.

The preparatory expectation was almost as bad as the agonising moments spent in a dentist's parlour after you have received the pleasing intelligence that he is engaged but will attend to you in five minutes. Mr. Buck shut himself up in what I have every reason to believe was Miss Wolsey's coal cellar, while under Miss Prior's direction I composed myself into an attitude, the left hand on my waist, the right resting gracefully on the antimacassar. The artist soon reappeared, and performed certain mysterious evolutions, which Miss Prior said was focussing me. When I was focussed he looked at me very intently, and said, "Now, ma'am, fix your eyes on this tree-trunk, and do not move them in the least. Now!"

I do not mind saying that I expected a flash as of lightning to burst upon my face when the great black velvet patch was temporarily removed from the awful glass eye, and I immediately screwed up both my own eyes to avoid it.

"Tish!" cried Mr. Buck impatiently, "we must try again!" And he disappeared into the coal-cellar once more.

Mrs. Dove and Miss Prior both immediately began to give me instructions how to behave. The first said, "There is nothing to be afraid of, dear Miss Lydia; do keep your eyes open next time!" "And," added Miss Prior, "do not look so severe. Say 'plum!'" It composes the features into such an amiable expression—'plum!'"

So I said "plum," and felt that I looked idiotic; and every-

body else said plum, to show me its dulcifying effect on the countenance. Mr. Buck reappeared; and, this time, with a strong effort I did keep my eyes steady, and was profoundly astonished that nothing alarming or unpleasant occurred. The artist rushed into the cellar again, and Miss Prior explained that he had gone thither to develop me. Dear me! I was never developed before! My pulse quickened. I believe everybody is anxious to see how they look in their portrait, and I quite held my breath when Mr. Buck came out of his retirement, and exhibited mine.

"O! you are quite flattered; it is an admirable likeness! O, admirable!" cried Miss Prior.

"It is very good; the dress has taken so well," added Mrs. Dove. "My dress was a black and red silk plaid: I like a striking pattern and full colour."

"It is, indeed, a faithful miniature of my face; it gives even the slight obliquity of my nasal feature, the bumpiness of my forehead, and the steadiness of my dark grey eye; but I do not agree with Miss Prior in considering it too favourable. No; photography is not a flatterer."

Jenny Polly, seeing that I had come out of the ordeal uninjured, now consented to be put into position on the chair; but no amount of persuasion could induce her to sit still when there, and, after five failures, she was permitted to stand down, and her mamma undertook to show her how easy it was to sit still and be good; but, at the critical moment, turning her head to say, "You see, Jenny Polly, how quiet I can be!" the result was that she was represented with two faces.

"Nothing remarkable in that!" whispered Miss Prior, who never lost the opportunity of saying an ill-natured thing, whether true or false.

The three children were next arranged in a group, and the issue was general confusion; we exhausted ourselves with devices to fix their attention, but in vain.

I pitied Mr. Buck. He was a little old man, with a wild shock of black hair, beard, and moustache, and a pair of irascible blue eyes. He wore a blouse of dark cloth, belted round his person with a broad band of patent leather, and evidently considered himself very picturesque. He was hot and moist, and his hands were spotted and stained with the chemicals, and his face likewise. Altogether, he looked as if he would have been much the better for a plunge into the water-butt—which occupied a large angle of the little garden—both as to cleanliness and coolness. I was growing tired, and anxious to be away, for the bees, aggravated by our noisy invasion of their territory, showed stinging propensities, and buzzed quite savagely. Deeply disappointed, Mrs. Dove proposed to pay and go, when Miss Prior said she would like to be done herself for half-a-crown, and Mr. Buck immediately focussed her. She seemed much agitated, and expressed astonishment at the firmness with which I had sustained myself through the trying operation; but kept herself, nevertheless, as still as a statue.

"We shall do," said Mr. Buck, triumphantly, as he issued from the coal-cellar after the developing process; and, indeed, the portrait he exhibited was a perfect success.

"But it is not a pretty likeness," said Miss Prior, plaintively—"not at all a pretty likeness. Will you try again?"

Mr. Buck protruded his nether lip slightly, and said, if she desired it he would, but that it was not likely he should obtain a better. "It is yourself, ma'am—your very self!" he observed. When I mention that Miss Prior has a high colour, chiefly concentrated in her thin, peaked nose, and a drooping eyelid, it will be seen how great were the difficulties in the artist's way. She varied her position the next time, so as to hide the latter defect, but was still dissatisfied.

I know Mr. Buck said something worse than "Tish!" as he plunged into the coal-cellar once more, for his voice was quite rasped when he came out and desired her to fall into position again. It will scarcely be credited that this foolish woman caused Mr. Buck to do her eight several times in eight different attitudes; indeed, she did not desist until there was nothing left to take but a back view, and then she paid her half-crown with a grudge. I was astonished at her meanness; and to see her hesitation over these eight portraits, as to which she should have finished and framed, was ludicrous. After taking and rejecting everybody's advice, she ended by keeping the first, which was certainly the best.

"After all, Miss Lydia, I would rather have mine than yours," she said to me as we were talking the matter over in the bun-shop; "you know it was portraits, not pictures, we went for



and it is easy to buy a fancy engraving. I am glad mine is a true likeness; I never consider people really respect us when they flatter either in words or deeds; and Mr. Buck has flattered you out of recognition."

I was silent. Miss Prior was evidently mortified, by the way she emphasised her remarks, and it was of no use to aggravate her further; but Miss Wolsey, for the sake of the artist's credit, perhaps, took upon herself the reply.

"Flattery, Miss Prior? there cannot be such a thing in photography: Mr. Buck explained to me the whole process. People complain-sometimes that it makes them uglier, but I never heard of anybody being made prettier."

"Just come and look, then—if you can tell Lydia Cleverboots's likeness you have better eyes than I can pretend to have!" retorted Miss Prior; and she led the way to the garden, all of us following in a body. When Mr. Buck saw us, he put his hands up to his head, and grasped his hair frantically; but was pacified when Miss Wolsey explained why we had returned, and he brought the portraits forth. Miss Prior took mine sharply out of his hand, and began to hold forth on its demerits, when suddenly a bee settled on her wrist and stung her severely. She gave out a shrill cry, and dropped my pretty little effigy upon the gravel, where it was utterly obliterated and destroyed. Mr. Buck ejaculated his little word again, retired into the coal-seller abruptly, and did not come forth while we stayed. Miss Prior feigned deep regret, but I am sure she went away in a better and more contented frame of mind than she would have done but for the happy accident.

"I will tell you where the fault lay, dear," she said, as we parted at Saint Mary's corner; "it made you look too young. You seemed like a handsome person of forty, or thereabouts; and you know you are more than that; for I recollect you quite a young woman when I was a little chit at Miss Thornton's school. Don't you recollect asking me to dinner once, when I came in a white frock and blue sash, and we had lamb and asparagus, and gooseberry tart with cream after?" I did remember that time: it was when Mr. Fenton was curate of Saint Mary's. He dined at our house the same day, and little Judith Prior clung close to my elbow all the evening, and listened to every word that we said.

This morning I perceived that one of the military gentlemen's portraits had given place to Miss Prior's, and there she hangs at this minute, in full view of the market people. I went as usual for my luncheon bun, after doing my weekly purchases in country produce; and, while eating it by the counter, I heard the butcher's boy (Mr. Steele's, not Mr. Edgebone's boy) call out to one of his acquaintances, "My eye, Tom! if here isn't old Miss Prior. What a stunning old guy she looks! don't she!" And I fear Miss Prior heard also; for she entered a moment after, excessively red, and immediately went into a tirade upon the lowness, the coarseness, and the stupidity of the common people.

## Science Notes.

A NEW peril is added to the many troubles of the landscape photographer. The rough demands to be photographed! The following extract from the *Birmingham Daily Mail* of August 2nd will explain the situation. It suggests that a small revolver may on occasion be a not altogether undesirable addition to the kit; or perhaps some enterprising inventor will "combine" a shooting instrument with a shutter!—

"Amateur photographers who go out from Birmingham on Saturday afternoons should take the precaution to carry a thick stick as part of their equipment, otherwise they may find their cameras reduced to a wreck in consequence of their inability to defend themselves. The reason I offer this advice is because I have received recently several complaints from amateur photographers that when pursuing their peaceful recreation in the locality of Knowle and Berkswell on Saturday afternoons they have been subjected to much annoyance and ill-usage by gangs of Birmingham roughs—some of the 'sloggers,' I presume, who have sought fresh fields for their exploits. One photographer was fixing his camera about a mile out of Berkswell last Saturday when suddenly four or five youths came from behind the hedge and saluted my friend with the Birmingham greeting of 'How do, boss?' They were wearing what the Balsall Heath magistrates call 'the regulation bell-bottomed trousers,' and evidently had come out of the slogging neighbourhood. 'Are you goin' to take uz?' one of them asked the photographer. 'Do you mean, take your photograph?' was my friend's query. 'Yes, you've

got to take uz all one after t'other," said the most determined looking of the lot. Now my friend had after infinite trouble just focussed his camera on a pretty bit of sylvan scenery, and he was not inclined to spoil the picture by introducing these blackguards, and he told them as much. 'Very well, then,' he was told, 'there are five on us, and we'll smash both you and yer machine.' This remark was accompanied by a move in the direction indicated, a move which would have been carried out had not the photographer been too quick. Fortunately, he carried a thick ashplant, and he used it to such good effect that the roughs were all scattered before they had time to realise what had happened. Another photographer I have heard of was not so fortunate, for his camera was smashed by two roughs, who would not be denied their photographs."

If this sort of thing continues, it will be necessary to form a "Photographic Defence Association" for the prosecution of such scoundrels, though if we had a really national and popular Society, representing the interests of photographers generally, this might well be one of its functions.

The paper used in photographic printing operations is always sized, glazed, or albumenised, in order to keep the image on the surface as much as possible. But the albumen, etc., introduce a host of evils; indeed, the fading of ordinary silver prints is largely due to the albumen. Mr. J. Williams, of the Willesden-Paper Works, has discovered that by floating paper on a bath of cuprammonium hydroxide, the surface of the paper is converted into a structureless film of cellulose, giving a permanent glaze capable of withstanding the action of "water, steam, weak acids, alkalies, and ordinary solvents, and with a surface closely resembling the albumenised paper used in photography." We hope that some of our large sensitised paper manufacturers will try this new product.

It is stated that Dr. Scheiner, of Potsdam, has obtained "good enlargements of photographs of stellar spectra, by fixing the negative in a frame having a to-and-fro motion, which causes the width of the lines to be increased on the plate being exposed." We should have thought that the result would have been "fearful fuzziness!"

Re the Claude Lorraine mirror as a view-tester. I am informed that some are in stock at Caplatzi's, in Chenies Street, Tottenham Court Road.

There has been some little mystery about the production of potassium meta-bisulphite, which is claimed to be the most valuable agent for the keeping of pyrogallie acid in solution. Messrs. Boake, Roberts, and Co., Chemical Works, Stratford, London, now claim to be the patentees of this salt, and to hold all rights for its manufacture.

The following "normal developer" is recommended by Mr. Croughton, President of the Rochester Camera Club, U.S. From experience we can recommend it as simple and good:—

Solution A.				
Carbonate of potash	..	..	..	3 ozs.
Water	..	..	..	12½ "
Solution B.				
Pyro	..	..	..	1 oz.
Sulphite of soda	..	..	..	4 ozs.
Water	..	..	..	12½ "
Potassium bromide	..	..	..	41 grains.
Citric acid	..	..	..	60 "

For use take one drachm of each solution and mix with two ounces of water. This will be sufficient for a quarter-plate; but use double the quantities for a whole-plate. Many of the minor evils of development disappear when plenty of the developing solution is used.

Go to any chemist's and get a piece of glass rod about eight inches long, with the ends rounded off. This may cost a penny. Use it to stir up the developer after mixing. Many streaks, etc., are caused by pouring on freshly made and imperfectly mixed solutions.

F. G. S.

MESSRS. LANCASTER AND SON'S 1890 Catalogue contains several new pieces of apparatus, including cameras, lenses, shutters, etc. Beyond this it is needless to say anything, except that the catalogue should be in the possession of every amateur photographer. The character of the apparatus supplied by Messrs. Lancaster is well known all over the world, and it is hardly too much to say that the firm have had dealings, directly or indirectly, with almost every worker in photography.



## Our Contemporaries at Home and Abroad.

*Anthony's Photographic Bulletin* says, "The Photographic Society of Vienna has awarded a medal to H. Laudaurek, of Teschen, for a method of reproducing and restoring prints which have faded. The published formula for which this medal was awarded is as follows:—

No. 1.	
Tungstate of soda .. ..	100 grms., or 3½ ozs.
Distilled water .. ..	5,000 c.c., or 175 "
No. 2.	
Carbonate of lime (C. P.) ..	4 grms., or 62 grs.
Chloride of lime .. ..	1 grm., or 15½ "
Chloride of gold and sodium ..	4 grms., or 62 "
Distilled water .. ..	400 c.c., or 14 ozs.

The second solution should be made in a yellow glass bottle well protected from the air, and allowed to stand for twenty-four hours, after which it should be filtered into another yellow bottle and kept well corked. For use, say for a sheet of albumenised paper, take 5½ ozs. of No. 1 to 1 to 2 drms. of No. 2, and place the faded prints, one at a time, therein, after having first washed them thoroughly. The intensification must not be too much in hot weather; ten minutes will probably accomplish the purpose intended, and if the conditions are right a beautiful clear purple colour will result. Care must be had not to have an excess of chloride of gold in this bath. To fix the prints, 5½ ozs. of solution No. 1 should be used with 4 drms. hyposulphite of soda, in which the prints, after being thoroughly washed, are immersed until the yellow colour has entirely left them, when they must again be washed; the fixing will require from three to five hours in some cases." Articles: "Chemistry of Iron and its Salts, and their Behaviour in Photography," "The Art of Retouching," "Miniature Photographs," "The Chester Convention," "Amateurs and Professionals," etc.

The *Camera* for August contains an article on "Hints on Photographic Portraiture," by Ada S. Ballin, in the course of which she says, "To avoid affectation is most important if one wants a good portrait, and in the matter of expression the best thing is not to think how one is looking, but to follow out some pleasant train of thought which will naturally call up a pleasing expression; an expression summoned up 'for this occasion only' is always objectionable." There are also articles on "Photographic Chemicals," "Photography in Natural Colours," "The Record of Photo-Micrography," "Stonehenge," "Photographic Weights, Measures, and Formulae," "Architectural Photography," etc.

The *Practical Photographer* (Summer double number) contains a number of well-executed process reproductions, illustrating an interesting article on "Posing and Lighting," and there are also articles on "Eyes and No Eyes," "Three Portraits," "Is the Convention a Success?" "How Sensitised Paper is Made," "Photography in Natural Colours," etc.

The *Photographic Art Journal*, under the heading "Is it Worth Doing," says, "Is it worth doing? is a good question; apply it every time before exposing a plate, and save untold disappointment and vexation. It is a good question, moreover, because of the sequel that if the answer be in the affirmative then—'it is worth doing well.' Fewer pictures with more care and thought devoted to each—no matter if one has to wait half an hour, or it may be an hour, if by so doing one may get, perchance, some figures or cattle into the picture, giving it life and perfecting its composition. If the picture is worth doing it is worth waiting for and doing well. If the sky is cloudless and the sun garish, and you feel that, with a bit of broken shadow, things would look better, save your plate and come another day, or leave it and look for a subject where cloud shadow is not so essential. Do not let the dry-plate makers so completely get the best of you, and grow rich, whilst you are getting crowds of indifferent negatives, giving prints which do not satisfy and only create regret. It is this that makes us rather lean towards the larger sizes in cameras as likely to make us more careful. One does not so recklessly use a 12 by 10 or 15 by 12 plate, when a quarter or half plate goes without a thought." Articles: "Toning Prints in Hard Water," "Photography in the Manchester Ship Canal," "The Tendency of Hand-Camera Work," "Impressionism and Realism," "On Tone," etc.

## Holiday Resorts and Photographic Haunts.

### CIRENCESTER.

AMONG the less known of holiday resorts and photographic haunts is the quaint old town of Cirencester, in Gloucestershire, but, although little known, it possesses many attractions both to the devotee of the camera and the naturalist. It is situated in a recess of the Cotswolds, about four miles from the South Wales line of the Great Western Railway (with which it is connected by a branch line at Kemble), about fourteen miles below Swindon, and ninety-five from London. It has not attracted the notice which it deserves, on account of its isolation, and this all the more entitles it to the attention of those in search of "fresh fields and pastures new."

The town itself possesses much of antiquarian interest, dating from the time of the Roman occupation of Great Britain, at which period it was a station of considerable importance. It is the principal town on the Cotswolds, and an important agricultural centre for the district. The amateur photographer in search of opportunities of trying his skill will find ample subjects on which to expose his plates. The first objects that will attract his attention are the parish church and adjoining town hall, the former one of the finest and most interesting in the country, and the latter a noble specimen of Tudor architecture. The streets, with their ancient gable-end houses, will also afford many interesting "bits" on which to spend a plate. The market place is very large, picturesque, and includes a fine view of the church. The remains of the old hospital church of St. Lawrence will prove a "tempting bait" to those fond of ecclesiastical architecture.

To the lover of landscape there is work enough and to spare. The Park, the country residence of the Right Hon. Earl Bathurst, contains much fine woodland scenery and a piece of ornamental water about twelve acres in extent. The park itself is eleven miles in circumference, and at the further end, a distance of five miles, is the picturesque village of Sapperton, situated in one of the most beautiful valleys in the Cotswold Hills, teeming with opportunities for the amateur photographer, who will find himself fully occupied and often puzzled which "bits" to select out of the abundance of material the neighbourhood supplies.

The Park, although the private property of Earl Bathurst, is, with the exception of a small portion surrounding the mansion, thrown open to the public, so that the picture-maker can wander amongst its glades and woods without let or hindrance, and take a "snap-shot" when and where he pleases, provided it is not at the pheasants.

The hostelry of the "Fleece" affords comfortable accommodation, and is a picturesque old building, which the visitor will not leave without bringing away a photograph of it.

Ilford plates and papers, and all necessary materials, can be obtained of Mr. W. Griffiths, chemist, who also has a dark-room at the disposal of tourists, and will be pleased to give any information required.

PHOTOGRAPHY ON THE MANCHESTER SHIP CANAL.—A correspondent of the *Manchester Examiner* sends to the paper a lengthy but interesting account of a trip over the canal works with a camera. A number of pictures are secured of spots which will soon be gone for ever. Here is the description of one of the views taken: "Then the lighthouse is thought worthy of a shot, as it stands inconveniently in the way of the canal, and so has to go, for the canal is peremptory, and things that stand in its way must go down. A little further and a large gang of men are encountered cutting and blasting the hard sandstone, which is 'dirt' in its present position, inasmuch as it is 'matter out of place'; but will by and by be built into the abutments of a bridge or the facing of a quay. A halt is made, and an obliging 'ganger' has a shot prepared, and when the camera is focussed upon the spot, the fuse is lighted and all retire to a safe distance except poor 'Pyro,' who looks anything but happy as he stands, string in hand, ready to release his drop shutter. A breathless pause of a minute, then a fountain of stones in the air, a loud report which covers the click of the drop shutter, and the bold photographer stands scatheless with a plate in his camera that develops subsequently into a beautiful negative."



## Societies' Meetings.

**BARROW-IN-FURNESS AND DISTRICT CAMERA CLUB.**—The first monthly meeting of this society was held on Thursday, 31st ult. The rules as drawn up by the Committee were submitted and approved; the remainder of the meeting was occupied in examining prints kindly sent by the Editor of the *AMATEUR PHOTOGRAPHER*, and various pieces of apparatus brought by different members. The prints were much admired, and the thanks of the meeting were given to the Editor for the addition to the evening's enjoyment. It was settled that the members bring specimens of their own work for the next meeting, which will be held on the last Thursday in August.

**BELFAST CAMERA CLUB.**—The usual monthly meeting was held in the rooms on the 28th ult.; Mr. Wm. Strain presiding. The result of the July print competition was laid on the table; the prize was gained by Mr. Strain, by an opaline entitled a "Fairy Tale." Mr. Hamilton gained second place with his picture, "The Fishers' Return." This was printed on Alpha paper, and had a pleasing green shade. The third place was gained by Mr. James McCleery with a good instantaneous picture of the famous scratch cutter *Thistle* passing the flag boat in the 10gatta at Bangor Bay. These competitions show a marked improvement in work, and each succeeding one shows the increased interest which the members have in them, by the large turn-out at our monthly meetings.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—On Thursday, 31st ult., the club met for the first time in its new quarters at Gresham Hall, Brixton, S.W. The walls were hung with the prize photographs in the recent *AMATEUR PHOTOGRAPHER* "Travelling Studentship" Competition, and a fine show they made. The President gave an address on "The use of Bromide Paper," dealing especially with the making of enlargements, various methods of printing in clouds, etc. A fine collection of his prints demonstrated the fact that the many hints given were really practical. Saturday, the 2nd inst., was a field-day at Bexley. Between seventy and eighty plates were exposed.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—A meeting was held on the 1st inst., at 8 o'clock, Mr. Thomas Child in the chair. The Secretary read a paper upon his recent visit to Jersey, and a number of half-plate views taken in the island were passed round and commented upon. It was remarked that the majority of the views showed natural clouds, others had them printed in, and Prof. Lambert requested the Secretary to explain, in the first place, his method of development, so as to obtain printable clouds without having to resort to double printing; and, secondly, his method of printing in artificial clouds. In reply, Mr. Davidson explained that most of the views which showed natural clouds were taken with a moderately quick shutter. They were developed with 10 per cent. solution of pyro, ammonia, and bromide, using the developer at first very weak. As soon as all details were out in the landscape, he washed the plate, then proceeded to paint over the sky with a 10 per cent. solution of bromide of ammonia. After continuing this for a few minutes he added the developer before used, without washing the plate; if necessary strengthening it, and so finished the negative. The bromide prevented the sky from becoming too dense, while the rest of the picture gained the necessary printing density. If there were no clouds in the view, no bromide was added, so as to get the sky as black as possible, for the purpose of subsequently printing in clouds. When the sky printed white the printing in

of clouds was a very easy matter. He simply put a clean glass in the frame; upon this the paper cloud negative, and then the view. Holding the frame in subdued light, he shaded the landscape portion with a piece of cardboard, which he kept continually moving, so as to prevent hard lines. When the sky, however, proved too thin, he held the glass side of the negative over a lighted paraffin lamp, from which the chimney had been removed, thus coating the sky portion roughly with a layer of soot, which was a most successful and quick method of bringing the sky to printing density. Holding the negative against the window, he then, with the aid of a stiff camel-hair or sable brush, removed the soot which had been deposited over the landscape portion. The whole process only occupied two or three minutes, and he then proceeded to print from the negative, obtaining perfectly white skies. The clouds were then printed in the ordinary manner.

**LIVERPOOL AM: PHOT: ASSOC.**—The seventh ordinary meeting of the twenty-seventh Session was held at the Association Club-rooms, Crescent Chambers, 3, Lord Street, on Thursday evening, the 31st ult.; Mr. Paul Lange presided. The following gentlemen were unanimously elected members of the Association, viz., Messrs. Herbert E. Cox, Arthur Workman, Herbert J. Mallabar, Rev. A. M. Lewis, C. R. Jones, Edward King Ellison. Mr. C. B. Reader reported on the excursion to Bolton Abbey, and gave some interesting information respecting the progress being made on the "Illustrated Liverpool" return set for the Boston Camera Club, U.S.A. A novel tripod, the invention of the Vice-President, Mr. Wm. Tomkinson, and designed by him for hand-camera work, was exhibited and explained. Mr. A. Tyrer exhibited a number of photographs that he had secured at Bolton Abbey; Messrs. Tomkinson, Phillips, and the Hon. Secretary (E. M. Tunstall), views of the interior of Eaton Hall, taken at the Chester Convention excursions, and the latter gentleman showed several fine whole-plate prints of Moreton Old Hall; also secured during the Convention week. Mr. Watmough Webster's photograph of the Convention group was also handed round. The President expressed the great pleasure it gave him in once more meeting the members of the Association after his trip to Iceland. He had undergone an experience as any man could undergo, and had passed through much hardship and fatigue. He thought he had accomplished a feat no man had done before in managing to climb up 5,200 feet, and photograph the crater of Hecla; thus Liverpool had distinguished itself again. Mr. J. W. Wade, Vice-President of the Manchester Amateur Photographic Society, was then called upon to give his paper on "Landscape Photography," illustrated by rapid sketches in charcoal. The President announced the excursions for the month of August, namely, to Rufford Hall, on Saturday, 9th inst. (half day), and to Haddon Hall on Wednesday, 20th inst. (whole day).

**LONDON AND PROVINCIAL PHOT: ASSO.**—At the meeting on August 14th the discussion on "Printing under Coloured Media" will be resumed.

**SHEFFIELD OPTICAL LANTERN SOCIETY.**—This society had its first annual excursion on the 28th ult. The place selected was Hardwick Hall. The party arrived about eleven o'clock, and at once commenced operations upon the ruins of the old hall. Over sixty exposures were made. The weather was delightfully fine, and the members spent a most enjoyable day.

**TOOTING AM: PHOT: SOC.**—A meeting of gentlemen interested in amateur photography was held at the Institute,

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Cornwall Polytechnic Soc: ... ..	Falmouth.	Aug. 26.	—	{ E. Kitto, Observatory, Falmouth, W. Brooks, Laurel Villa, Reigate.
Phot: Soc: of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
.....	Manchester.	Sept. —.	Jan. (1891).	C. G. Virgo, Art Gallery, Manchester.
Edinburgh Phot: Soc: ... ..	Edinburgh.	Nov. 14.	Jan. 7 (1891).	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Phot: Soc: of India ... ..	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Liverpool Am: Phot: Assoc: ... ..	Liverpool.	Mar. 6 (91).	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.

\* English and European exhibits should be despatched not later than Oct. 1st.



Merton Road, on the 29th ult. Mr. J. H. Beckett, who was called to the chair, placed before the meeting the advantages of having a local society, and after considerable discussion it was ultimately resolved to form a society, and that it be called the "Tooting Amateur Photographic Society." A temporary committee was then chosen, consisting of Messrs. Dollery, Stowell, Beckett, Irwin, and Child, to formulate a code of rules, etc. Ladies and gentlemen desirous of becoming members are requested to communicate with Mr. J. F. Child, of 22, Longley Road, Tooting, who has consented to act as Secretary *pro tem*.

**TOYNBEE CAMERA CLUB.**—By the courtesy of the Toynbee Students' Union, a few members of the club were able to join them in their visit to Lambeth Palace on Saturday, 26th ult., and were successful in obtaining a number of very good negatives. On the 27th ult. an outing was made to Knockholt, *via* Hayes Station, from whence the members enjoyed a delightful ramble across Hayes and Keston Commons, through Holwood Park to the Village of Down, thence to Knockholt, returning from Halstead Station after a very enjoyable day, during which a good number of plates were exposed.

**WEST LONDON PROT. SOC.**—An ordinary meeting was held on the 25th ult., Mr. Chas. Bilton (President) in the chair. Dr. St. Clair Buxton and Messrs. Lynn, Ward, Holmes, and Kendall were elected members. The question of the advisability of removing the *locale* of the society from the Addison Hall to the Lecture Hall, Broadway, Hammersmith, was considered. In the result, a motion in favour of the suggested change was moved and carried. The remainder of the evening was occupied in exhibiting and criticising work done on the summer excursions. It was announced that the next outdoor excursion would take place on August 9th; on August 23rd an excursion up the Brent; on September 26th an indoor meeting will be held at the Broadway Lecture Hall, Hammersmith.

**MESSRS. JOHN J. GRIFFIN AND SONS, LIMITED**, of 22, Garrick Street, Covent Garden, have just issued a new catalogue, which is one of the most complete we have seen for some time. Every requisite for the photographer, amateur or professional, is to be found in it at a reasonable price, and Messrs. Griffin endeavour to supply not only the best material but the best workmanship. The chemicals supplied are pure, and at the end of the book there is a considerable number of formulae. We recommend intending purchasers to secure a copy of this catalogue before buying.

**AMATEUR PHOTOGRAPHY.**—"Dogberry," writing in last week's *City Press*, says, "Amateur photography is just now the rage in London, and few of my outings are considered complete unless the hand or detective camera has been very freely used. At a recent gathering of pressmen some very excellent instantaneous work was done with a Swinden and Earp's machine. These photographs, which for clearness of definition, sharpness of outline, and beauty of execution could not possibly be excelled, have been a fund of considerable amusement in Press circles ever since."

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.

2. Write each Query or Answer on a separate sheet of paper.

3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.

4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.

5. The Editor does not undertake to answer questions by post.

6. In answering Queries, correspondents are requested to mention, in every instance, the *number* and *full title* of the query referred to.

## QUERIES.

4057. **Carbon Prints on Glass, etc.**—In making positives by the carbon process, on glass coated with bichromated gelatine, I get the whole gelatine surface covered with a fine grain or reticulation. This does not appear during development, but manifests itself during drying. Can I overcome this? Would a longer soaking in alum bath be of use? When I print negatives by the same process and develop on copper coated with powdered asphaltum (for photo-engraving), shall I experience the same difficulty, and will the tissue adhere without a substratum?—**W. WHITE.**

4058. **Green Glass.**—Can anyone inform me where I can get a piece of green glass, quarter-plate size, and what its price is, as I intend trying my hand at it? Also does it interfere with vignetting?—**BROCKLEY ROAD.**

4059. **Photographing Machinery.**—Will some reader kindly tell me what exposure I must give for

THE "DIAMOND" hand-camera, made by Messrs. Talbot and Eamer, of Blackburn, carries twelve quarter-plates, and is one of the most compact for that purpose we have seen; no space is lost. It is provided with a good R.R. lens of fixed focus, which well covers the plate, two finders, so that pictures may be taken either way of the plate, and a shutter to work either instantaneously or by time. The arrangement for changing the plates takes the changing bag form, but it is both simple and effective, the metal sheaths which are provided for carrying the plates being a sure prevention from scratching, and also from light. The last sheath is attached to a piece of mahogany, so that in the event of the user only exposing, say, three or four plates, and becoming desirous of developing them before exposing the others, he is saved the trouble of endeavouring to get a picture out of an unexposed plate, which he might do but for the special backing of the last sheath. Nothing is more common or more annoying with the amateur photographer than for him to forget how many plates he has exposed. The price is reasonable, £2 12s. 6d.

"ME AND JIM."—This is the title of a small brochure which tells a history of "Me" a plumber's boy, and "Jim" a journeyman plumber, or, as "Jim" would say, a tradesman. It is really a very cleverly written skit upon the work done or left undone by the British workman as he is to be found in connection with plumbing and gasfitting all over the kingdom. "Me and Jim" are employed by Mr. J. Trapley, plumber, gasfitter, and sanitary engineer, Sawder Street, Soho. Mr. Trapley does not appear to have had much to do with the business except to make out the bills, at which he was an adept. "Jim" went from bad to worse, and "Me" took his place. The business afterwards progresses, and "Me" is taken into partnership, and ultimately the whole system improved and really first-class work done. Whether the story of the book, as it ends, is likely to be consummated in plumbing circles remains a problem to be solved. "Me and Jim" will afford amusement to all who have studied the British workman.

MR. C. C. VEVERS sends us the last edition of his catalogue; he appears to sell all the requisites of a worker in photography. We might call attention to the following goods, which, we understand, are of exceptional worth: "Perfection" camera, "Simplex" hand-camera (this looks very like Samuel's patent, but it is catalogued as "Vevers' Simplex hand-camera"); rapid rectilinear lenses which are said to be of  $7\frac{1}{2}$  inch focus, and to cover half-plate, sold for 25s.; an automatic shutter, to fit any lens up to  $2\frac{1}{4}$  hood, price 21s.; a "Pyramid" changing bag of ingenious construction; "dark-slide cases," etc. Mr. Vevers says that the sensitised albumenised paper sold by him is prepared on the premises and under his personal superintendence. He advertises a new paper; "argentic platinum." We know nothing of this paper; but he claims for it many advantages over any other in the market. Another paper is "transparency paper," stated to give "a beautiful transparent picture by simply washing in water;" variations in tone are possible by immersing in different solutions. Mr. Vevers closes his catalogue with a long list of agents.

machinery in an engineering shop? A few hints as to lighting the subject would be acceptable. I use Ilford slow plates.—**ENGINEER.**

4060. **Fog.**—I find after developing my plates that they are always fogged round the edges from  $\frac{1}{4}$  in. to  $\frac{1}{2}$  in.; could anyone say what is the cause of this, and how I can prevent it?—**COLONSAY.**

4061. **Effervescence in Developer.**—I keep Mawson's developer in 10 per cent. solutions. When the ammonia is added to the pyro (before the water is put in) strong effervescence with fumes occurs. This is possibly only the natural result of the mixing of acid metabisulphite (the preservative used by Mawson) and the alkaline pyro, but I should be glad of others' experience.—**FALCO.**

4062. **Lens.**—Will some one kindly tell me how I can make my lens cover the plate ( $4\frac{1}{2}$  in. by  $3\frac{1}{2}$  in.)? I am using a very small stop, and I am afraid if I try to use a smaller one, the exposure will be too long for portraits.—**ALFRED.**

4063. **Stains while Developing.**—On developing Ilford plates (yellow label) with the Ilford developing formula, pyrogallol and ammonia, as given on the lid of the box, I often find coloured stains on the margins of the negative after the fixing bath; these stains are only visible by refracted light, and show all the colours of the spectrum. Can any brother amateur tell me the reason of this?—**A PARISIAN AMATEUR.**

4064. **Developer.**—Will any brother give the best



developer for bromide enlargements, one that won't stain paper? Have used iron, but have got stained paper. Also best clearing bath.—J. J. B.

4065. **Intensifier.**—Will any brother give me Abney's mercury intensifier, or any other good one?—J. J. B.

4066. **Enlarging Camera.**—Can anyone give me their opinion of Lancaster's Multum in Parvo enlarging camera, or Perken, Son, and Rayment's enlarging lantern.—J. J. B.

4067. **Exposure.**—Should be glad to know what exposures are necessary for sea views with and without shipping on the Clyde and on the West Coast of Scotland, using Ilford rapid plates.—AMATEUR.

4068. **Leamington.**—Would some kind friend tell me of a place in Leamington, Warwickshire, where I could develop and procure chemicals, etc.?—S. T. M.

4069. **Westminster Abbey.**—Will some one kindly inform me as to whom I should apply for permission to photograph the interior of Westminster Abbey? Is this permission difficult to get? Any particulars as to exposure and hints as to best things to take, and best times to take them would be very acceptable to—CLAUDE MELLOR.

4070. **Small Stop.**—Opticians supply with each lens a stop about  $\frac{1}{4}$  in. diameter. Will some experienced photographer explain the circumstances under which this should be used?—ENQUIRE.

## QUERIES UNANSWERED.

June 13th.—Nos. 3885, 3901, 3910, 3911.  
20th.—Nos. 3917, 3918, 3922, 3924, 3927, 3928, 3929.

27th.—Nos. 3935, 3939, 3940.  
July 4th.—Nos. 3950, 3953, 3967, 3968, 3969, 3972.  
11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3990, 3991, 3992, 3994, 3995, 3997.

18th.—Nos. 4003, 4004, 4005, 4007, 4008, 4009, 4013, 4016, 4017, 4020, 4021, 4024, 4025, 4026, 4027, 4029.

25th.—Nos. 4031, 4036, 4037, 4042, 4045, 4048.  
Aug. 1st.—Nos. 4043, 4049, 4050, 4052, 4054, 4055.

## ANSWERS.

3883. **Photo-Micrography, Plates and Light.**—Try Page's 60 times, or Wratten and Wainwright's. Paraffin lamp is good, unless you have oxy-hydrogen light.—A. H.

3884. **Brittany.**—Write to Mr. A. R. Dresser, Springfield, Bexley.—A. H.

3896. **Great Yarmouth and Lowestoft.**—Lowestoft would make the better centre, and the good spots are numerous and varied.—E. H.

3933. **Nitrate of Silver.**—Dissolve a clean coin in moderately strong nitric acid, and evaporate to dryness in a porcelain dish, when a blue residue containing the nitrates of silver and copper is obtained. The dish is now moderately heated until the residue becomes uniformly black, the copper nitrate having been converted to the black oxide. Test a small sample with ammonia, which will give a blue colour if any copper nitrate remains. Treat with hot water, filter to remove copper oxide, and evaporate to crystallisation.—G.

3933. **Nitrate of Silver.**—Dissolve the silver in nitric acid and water (1 pint acid and 2 water); tin will be precipitated; filter the solution, and evaporate to dryness. Re-dissolve in distilled water, and evaporate to dryness. To get rid of the blue appearance given by copper, add silver oxide till blue has disappeared, and the copper has formed a black precipitate. Dissolve in water, and filter, finishing by evaporating to dryness.—L. C.

3946. **Speed of Kershaw Shutter.**—I should suggest writing to the maker for the information required.—LANC.

4014. **Carbon Printing.**—Yes; this work can be done by any amateur. First, take your print and temporarily affix to a support, and develop from the back with water at 110 degs. Fahrenheit. The print soon shows its beauty, and is then fixed in water and alum. There is one drawback, which is that the paper will only keep about a fortnight.—BROCKLEY ROAD.

4023. **Waterfalls under Foliage, etc.**—Use an instantaneous shutter, with Ilford instantaneous plates, during this month if in sunshine, and two-thirds of a sec. if in diffused light; during September two-thirds of a sec. for sunshine, and 1 sec. in diffused light.—BROCKLEY ROAD.

4032. **Dark Rooms.**—The AMATEUR PHOTOGRAPHER list of Continental dark-rooms does not include Nuremberg, Munich, or Milan; but there is one in Venice. For the name apply to the Editor.—BROCKLEY ROAD.

4051. **Negative Varnish.**—You had better buy it, as it comes much cheaper in the end, and is generally better than home-made.—R. A.

4053. **Silver Prints.**—Read article in last week's AMATEUR PHOTOGRAPHER; and if that does not answer, change the makers of your paper.—BROCKLEY ROAD.

4058. **Exposure.**—It is next to impossible to answer your query, as you do not say what you are going to take, what stop, or in what month. I cannot do better than advise you to get the "Beginner's Guide to Photography," published by Messrs Perken, Son, and Rayment, price sixpence, which has a good exposure table in it. You must judge for yourself when the plate is developed enough, as it is only learnt by practice and patience.—BROCKLEY ROAD.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING's post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED:AM:PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

A. CURRIE.—We shall show your letter to the firm.

A. S. GRUNBAUM.—The camera has reached us safely and in good order. Prints are returned.

W. T. TUCKER.—A genre study is really a composed picture with figures. The one you send may be classed as such. It is absurdly ridiculous, and the composition is not good. The hand-camera shots are very good, and the tone excellent.

REV. H. H. MORDEY.—We should advise No. 2, though both the others are useful shutters.

SAM WELLER.—Either 1 or 2. You will find them thoroughly reliable.

C. HAIN.—See notice this week. The lens covers, and the shutter is ingenious and works well.

HENRY MANNING.—Why not use the camera, as it is, in your hand? We do not know if the lens will work at a fixed focus, but you can try.

C. HETHTON LEWIS.—The prints are very good. Certainly, many of them do.

DOUBLET.—We should advise you to write to the firm. We do not know the lens under the name you give. It is not fair to expect a 5 by 4 lens to cover a half-plate. Glad to hear that we have helped you.

MUTE.—If you can adopt gas to your dark-room lamp, by all means do so. Shall be very pleased to see your work with the altered camera.

PHONO.—You have succeeded very well, and will soon be able to send to our "Monthly Competitions." The print is really very good.

RENTAMA.—Your photographs show much care in selection of point of view. In No. 1 the cottage is well placed, but the foliage is "fuzzy," owing, of course, to the wind. No. 2 is very good; a little more of the print would have helped the picture. No. 3 might, with advantage, have been printed out a little deeper, but it is an excellent panorama view. No. 4 is a charming spot, rendered with great care. Nos. 5 and 6 show careful selection. Nos. 7, 8, and 9 have nothing much in them; the best is No. 8. Your photographs would be much improved in appearance if you used sunk mounts, and not mounts with lines. Your work, as a whole, is very even, and we are pleased to hear that you propose entering our "Competitions."

R. A. R. BENNETT.—The lens certainly covers the plate. We think that the camera will be found very useful and serviceable, provided the makers take a little more care in the manufacture.

ED. JACKSON.—In a few days we will write you. Shall not be North this year. Your print is too purple; it wants a redder tone in it.

H. NYE.—The number will be out this month. The competitions are not yet settled upon; but they will be advertised next month. The prints you enclose are very fair, especially the single figure. We do not often see such good results on Pizzighelli paper.

C. A. T.—You cannot expect good results from plates two years old; throw them away, and if the chemicals are as old throw them away too. The print you send is over-exposed, the negative is valueless. Use stop f/8 or f/11, and give an exposure of cap off and on. Above all things, do not attempt to take photographs until you have studied a handbook upon photography and photographic chemistry. You require to be careful, patient, and exact, and above all things to have fresh plates, paper, and pure chemicals, and be sure to see that everything in your dark-room is clean and free from dust. It will take you about three months' study before you are able to turn out a decent photograph. It is useless upon every little failure to write off to the editor of a photographic journal; look up your Handbook, and find out in what you are wanting.

H. T. C.—The prints look as though the paper were not fresh; you have probably forced development. Could you send us the negative? We might be able then to help you.

W. H. SAUNDERS.—Unless a thing can be well done it is not worth while doing at all. The pictures you

referred to were not done well; they were inserted at a very heavy cost, and gave satisfaction to no one. In the Reporter only the most artistic processes will be resorted to, and those who wish to have a good picture will assuredly get one. It is not likely we can loan you the "Travelling Studentship" prints at present. The first to have them will be the photographic societies, and already a great many dates are fixed. Your print is far too black in tone.

E. F. B.—We have to thank you for an excellent collection of photographs for the "hospitals." The prints are made much more interesting by the description being written on the back. We do not like the green tone. They are all most interesting, particularly "The Death of the Tiger," "Solomon in all his glory, etc.," and "You may take a Horse to the Water, etc." We comment upon your suggestion in another column.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the SELLER to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the maximum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**Burnisher.**—Half-plate burnisher, in good working order; 12s.—A. F., 19, Highbury Park, Highbury, N.

**Burnisher, etc.**—Vevers' 6½ in. burnisher, good as new, and Vevers' portable distillery; cash 15s. the two.—H. Bartholomew, Great Linford, Newport Pagnell.

**Cameras, etc.**—Half-plate long-focus camera, brass bound, reversing back, all motions, three double backs, morocco leather case, best London make, equal to new; cost £7, price 95s. 5 by 4 ditto, by same maker, three double backs, Wray's rapid rectilinear lens, Kershaw shutter, Watson tripod, case, printing frames; cost over £10, price £6. Advertiser giving up photography.—1914, Mare Street, Hackney, N.E.

Half-plate mahogany bellows camera, with rack and pinion, swing back, four double dark slides, one carrier, and tripod stand; 70s.—Jones, Wheelgate, Malton.

Underwood's 1888 quarter-plate Instantograph camera, and one slide, as new; cost 28s., bargain, 20s.—2, Hawthorn Villas, Slad Road, Streud, Glos.

Quarter Instantograph, complete; exchange half-plate camera, or cash.—Leader, Sutton, Surrey.

**Camera, Lens, etc.**—Great bargain. Giving up photography. 7½ by 5 camera, by Meagher, double swing back, and usual motions; elastic partition for stereoscopic views, two fronts, three double slides in cases, triangle, solid leather case, Dallmeyer's 8 in. rapid rectilinear. "Gem" pneumatic shutter, Aputz finder, Wray's 5 in. stereo lenses pair, also pair 7 in. in case, fitting same flange, stereo flap shutter, five dozen Thomas's T C E B plates, one dozen Ilford half-plates, printing frame, three 10 by 8 dishes (porcelain), four Tylar's pulp trays, 7½ by 5 tripod stand, all of the very best workmanship; cost over £22, price £16; if without stereo lenses, £13; approval.—Walton, Windlehurst, Churchtown, Southampton.

**Dark Slides.**—Three solid double dark-slides, half-plate, good condition, but little used; 6s. 6 d.



each; three, 18s.—Winn, Uplands, Selly Hill, Birmingham.

Two quarter dark slides for Underwood's Convention; approval.—44, Derby Street, Newcastle-on-Tyne.

**Hand-Cameras.**—Fallowfield's "Facile" hand-camera, quite new, rectilinear lens and finder; cost £5 5s., accept £4 10s. Reason for selling, have two.—Ponting, National Provincial Bank, Liverpool.

Optimus magazine hand-camera, new; cost 147s., accept cash offer over £5; rare opportunity.—17, Sedan Street, Waltham.

**Lenses.**—Vevers' cabinet view lens, revolving stops, 9s.; half-plate rectilinear, new; 22s. 6d.—T. Hall, Pinfold Lane, Lancaster.

Lancaster's half-plate wide-angle lens, Iris diaphragm; cost 42s., sell for 22s.—Kelly, Printer, Uttoxeter.

Cabinet lens, 2B (Sands and Hunter), first-class lens, equal to best makers; having no use for it, will take first reasonable offer.—Walker, Watchmaker, Minster, Thanet.

**Lenses, etc.**—Lens, rectilinear, 7 by 5, loose hood, with stops, working to f/8, best finish, quite new; 25s.; approval 6 stamps. Also solid leather camera case, quite new; 14s. 6d.—1, Hermitage Mews, Stamford Hill, N.

Whole-plate R.R. Dallmeyer, £4 15s.; Newman shutter, 12s. 6d.; 5 by 4 R.R. lens, quite new; cost 35s., will take 20s.—No. 63, AMATEUR PHOTOGRAPHER Office.

**Negative Paper.**—1½ dozen Eastman's negative paper, 7 by 5; 10s. lot, or 2 dozen 2s.—17, Sedan Street, Waltham.

**Popular Educator.**—Exchange twenty-two numbers "Cassell's New Popular Educator" for half-plate camera bag.—Riley, Lane Side, Haslingden.

**Sets.**—Lancaster's 1890 Instantograph quarter-plate camera, with lens, double slide, and stand, never been used, for sale; what offers?—T. J., 33, Lismore Terrace, Carlisle.

Lancaster's half-plate Instantograph camera, three double backs, tripod, and leather case; price £4.—J. D., 4, Fenchurch Street.

Quarter-plate Lancaster's International camera, lens, and tripod, four metal, one wooden slide. Wanted, half-plate camera, lens, and slides.—J. Hall, Arpley, Warrington.

Watson's half-plate Acme 1890 camera, with turntable and tripod, one double slide with Beck's Autograph Combination R.R., 5 ins. and 9 ins. focus lenses, both fitting same Iris mount; cost £16 10s. in July; £14 complete; not soiled.—Sprague, 35, Darnley Road, Hackney.

Capital half-plate camera, two double slides, carriers, etc., brass-topped tripod and case.—Camera, Hamilton Lodge, Guildford.

Half-plate bellows camera, 2 slides, tripod, chemicals, etc., 23s.; or exchange for detective.—J. Dudley, Pailton, Rugby.

Perfectly new half-plate camera, having all the latest improvements, lens, 3 double backs, leather case, and sliding tripod, only used four times; cost £14, will sacrifice for £10; would not sell only am leaving home. To be seen with specimens of work at any time, at Mrs. Edwards, 80, Englefield Road, Essex Road, London, N.

Excellent Spanish mahogany 7½ by 5 camera, by Hare, in case; 4 dark slides, first-rate tripod, binocular front and extensible division; also single lens front, camera, and backs in cases; also 10 by 8 camera, and one dark slide, all in excellent condition, in fact, as good as new; cost £19, will take £11.—Bassano, Old Hill, Staffs.

### WANTED.

**Accessories.**—Studio accessories, background, etc.—Moore, 8, Malling Road, Snodland.

**Cameras.**—Fallowfield's O Special camera, whole-plate; state lowest price for cash.—H. Bartholomew, Great Linford, Newport Pagnell.

Half-plate camera, McKellen, Watson, or other good make.—Vicar, S. Philip's, Southport.

**Camera Case.**—Carrying case, with shoulder strap, to take half-plate Instantograph, three slides, and lens. Also Belpsee changing bag, half-plate; cheap.—Kinchin, Lydiard, Swindon.

Camera case for half-plate Instantograph and three backs.—Grindle, Withyham, Tunbridge Wells.

**Camera, etc.**—Half-plate camera and three double slides, must be light and well made, long focus, and with or without lens, etc.; no fancy price given. Watson's Acme preferred.—H. Sprunt, 75, Loampit Vale, Lewisham, S.E.

Quarter-plate camera and lens; must be cheap.—White, 17, Aberdeen Road, Highbury.

**Lenses.**—Half-plate R.R. Optimus (7 by 5) or Euryscope; cheap; approval.—Hirst, Bishopthorpe Road, York.

Quarter-plate portrait lens for Lancaster's Merveillex; lowest price for cash.—W., 8, Junction Place, Amhurst Road, Hackney.

Whole-plate R.R. lens, ditto wide-angle, with good instantaneous shutter preferred.—Particulars and price to Biden, 11, Leadenhall Street, London.

7 by 5 Optimus R.R.; state lowest price.—Jones, 31, Beaufort Street, Brynmawr, Breconshire.

**Prize Pictures.**—One or two perfect copies of AMATEUR PHOTOGRAPHER prize pictures. No. 1.—Address, No. 62, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, Ludgate Hill, London, E.C.

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**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

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# The AMATEUR PHOTOGRAPHER

Telephone No. 1645  
Telegraphic Address: VINEY, LONDON  
Edited by CHARLES W. HASTINGS

VOL. XII. No. 306.]

FRIDAY, AUGUST 15, 1890.

[PRICE TWOPENCE.]

## ✿ OUR VIEWS. ✿

To hold as 'twere the mirror up to nature."—Shakespeare.

WE understand that the tomb of M. Louis Mandé Daguerre at Corneilles is in a very dilapidated condition. We feel sure that many of our readers will regret this, and we are quite willing to collect subscriptions to be forwarded to the Curé of the parish, in order that the tomb shall be put in proper repair and maintained. Subscriptions should not exceed £1 1s., and we shall be glad to hear from those who are willing to support the movement. All workers in photography are indebted to Daguerre for the work done by him in connection with photography. The American photographers have erected a monument at Washington to his memory. Surely Englishmen might assist in restoring the last resting-place of one of the earliest "fathers of photography."

\* \* \* \*

IN another column will be found a letter from Mr. J. S. Hawker, of Plymouth, with regard to the establishment of a Photographic Exchange Club. The movement is one, as we think, deserving of support, and we shall be pleased to render it every assistance in our power. There are, of course, many exchange clubs with a limited number of members, but we take it that Mr. Hawker proposes a far more extensive organisation.

\* \* \* \*

WE are pleased to be able to announce that Mr. Alfred Maskell has consented to contribute an article to the October number of the *Photographic Quarterly* on "Photography in Natural Focus, without a Lens." It is hoped that arrangements will be made to reproduce one of his photographs by photogravure. The Hon. J. G. P. Vereker will contribute an article entitled "Values," and Mr. Howard Farmer hopes to have ready for the same number a paper upon "Photography from Yachts."

\* \* \* \*

THE *Quarterly* received considerable attention at the hands of Mr. W. T. Stead, the able editor of the *Review of Reviews*. In his *Review*, he has added a section "Photographs of the Month," and says, "The progress of photography and the rapid development of photographic publishing leads me to add this month a new feature to the *Review*. I shall publish a list of the new photographs that have appeared at home and abroad, together with an occa-

sional reproduction of the most interesting." In the number under notice Mr. Stead reproduces photographs of Mr. H. M. Stanley, by Mrs. Myers, Sir John Millais, by Fradelle and Young, and Sir Frederick Leighton, by the London Stereoscopic Company. An interesting article by Editor of the *Practical Photographer* on "Photography in Natural Colours," is also reproduced under the general heading "Our Scientific Causerie." The writer says, "In the July issue of the *Photographic Quarterly* is published a photo-chrome, or photo-mechanical print in natural colours, which is interesting as being the first photo-chrome from solid objects issued to the public in England, if not in the world." He then goes on to set out the experimental work that has been done, and concludes with a paragraph which we reproduce:

"What has actually been achieved is represented in its most accessible form by the print given with the *Photographic Quarterly* for July. It is a photo-chrome of several gaudily-coloured bowls and vases, Japanese hand screens, plants in pots, four peacocks' feathers, and a coloured rug or carpet. Without the original objects to refer to, it is impossible to say that the colours are truly rendered, but there is no reason why they should not be so. Speaking of the variety of tints and shades produced from the three colours, a competent chromo-litho artist, to whom I showed the print, described it as a wonderful production, which his art could scarcely rival, and said he would not attempt to produce an equal effect with less than ten or twelve printings."

In addition to a kindly notice of the general contents of the *Quarterly*, Mr. Stead gives excerpts from Mr. Peter Macnab's "Is Art Indebted to Photography?" and also from the Rev. T. Perkins' practical article "A Plea for Systematic and Associated Work in Photography."

The *Review of Reviews* has a circulation of some 85,000 copies, and the Editor deals with almost every subject, and has a kindly leaning, we are pleased to note, to photography.

\* \* \* \*

From our advertising columns it will be seen that the British Photographers' Co-operative Stores, Limited, has been registered with a capital of £10,000, in 4,550 ordinary shares of £2 each, and 900 founders' shares of £1 each. The prospectus sets out the advantages and privileges to be derived by shareholders. The objects of the Company are to supply shareholders and the public generally



with photographic stores, materials, instruments, etc. The Company acquire the business of a firm who hold certain agencies which alone are said to yield a sufficient profit to "pay upwards of 10 per cent. on the entire capital of the Company." The Secretary, Mr. W. Hillier, 41, Eastcheap, E.C., will be pleased to give further particulars, and forward prospectuses, etc., upon application.

\* \* \* \*

THE following paragraph, over the initials T. C. H., appears in a recent issue of the *Graphic* :—

"Although it is well known that the shares in the company for taking automatic photographs on the penny-in-the-slot principle were all subscribed for many weeks ago, the machines have not yet made their public appearance. The company have certainly, like all of us, a good excuse to put forward for their absence in the dull weather we have lately had, but the sun has now for many days been shining liberally, and the machines will never have a better chance than at present, for after July the actinic value of the light quickly declines. There are hundreds of amateur photographers about who are anxious to see how photographs, which they well know require such care in exposure and development, can be shelled out like peas—or rather like sweetmeats and chocolate. Even the less-complicated contrivances which yield these delicacies to penny persuasion have been known to get out of order, but perhaps photographic machines will treat their patrons better."

\* \* \* \*

WE regret very much that Mr. Bulmer has, under an assumed name, been again making use of our Sale and Exchange columns. It is almost impossible for us to prevent him doing so, but we earnestly ask subscribers who are about to buy goods of unknown advertisers to make use of our "deposit system." We publish the correspondence which has revealed Mr. Bulmer.

\* \* \* \*

QUITE recently two of our subscribers were victimised by a man named C. Roseden, at Swansea, who wrote from 35, Swan Street. He advertised an Optimus Euryscope, 7 by 5, new, at £3, and an Optimus R.R. at £2. One subscriber sent him £2 for the R.R., and received an acknowledgment, accompanied by a statement that as he was coming to London he would call with the lens. He never called, and the letters have been returned. Another subscriber sent him £5, and never heard again from him. This victim tells us that he has been in correspondence with the Swansea police, who say that he lodged at the address 35, Swan Street, but has left, and they cannot find anything of him. Another subscriber writes: "I wrote to C. Roseden offering to take the lenses, and offered the price—of course, conditionally that I should deposit the amount with you, whilst he sent the lenses for me to test. I received no reply to my letters whatever." In this latter case our subscriber saved his money. We do hope that this will act as an incentive to purchasers to buy on the "deposit system." The system entails a vast amount of work on our publishing staff, but it is a certain preventive to being victimised by dishonest and unscrupulous advertisers in the "Sale and Exchange" columns.



PRIMROSE PHOTOGRAPHS.—A leading firm of London photographers is just now engaged in a novel scheme of somewhat wide dimensions. They have several representatives out securing photographs of all the "leading" Conservatives of the country, amongst whom will be included secretaries of clubs and Primrose League groups. All these are to be made into a gigantic album, an attractive copy of which will be duly presented to Lord Salisbury. The firm anticipates a large sale for its picture book, especially as mediocre "constitutionalists" are making strenuous efforts to get themselves included in the list of persons selected for this distinction.

## THE CAMERA CLUB.

FOR purposes of reference we have just opened vol. ii. of the AMATEUR PHOTOGRAPHER, and on page 308, in the issue of August 21st, 1885, we find a letter from the pen of Mr. John Howson, headed, "The Proposed Club," in which he says, "Surely it seems a great waste of energy and money to endeavour to form so ambitious a Club (perhaps a little prematurely) as the proposed 'Camera Club,' when a small proportion of this same energy and money, if spent in putting a little new life into and slightly extending the scope of the well-established 'Amateur Photographic Association,' would suffice to give the world of amateurs all it could need at present in the way of clubs."

Well, five years almost to the day finds the Council of the Camera Club taking upon itself great responsibilities with every prospect of great success. The writer of the letter referred to, Mr. Howson, like many another, who could not see the necessity for the Club, has become a member, and it is only to be supposed that he at least is satisfied that the Club, which was prematurely born of ambitious parents, is now a necessity to photographic life.

The Camera Club through all its early stages was nursed and fondled in the arms of the AMATEUR PHOTOGRAPHER. Until it started a Club journal, these columns were used as a means of ventilating the benefits to be derived by membership, subscriptions were drawn by appeals in this journal, and by our aid the Club attained respectable proportions. Sneered at by the editors of professional journals, pooh-poohed by the members of the older photographic clubs and societies, it held its own, mainly through the indomitable pluck, energy, and perseverance of its officers. Some are still in command, others have retired, and many new and hard-working members have been elected on the Council, and the result of their labours we shall set forth later on.

We have from time to time considered it our duty to urge upon the executive the necessity of keeping up to time, and of doing more for the advancement of photography. The annual Conference has not made the advances that we had hoped it would—up to this year it remains much as it did the first time it was held—but the Club has grown so rapidly, and the Council have for so long battled with the almost insurmountable difficulty of securing premises adequate for the requirements of the members, that that alone has been sufficient cause for any laxity in the general advancement.

At last the difficulty has been overcome, and the illustration which we give of the new home of the members of the Camera Club is a sufficient proof that the Council have indeed done well by playing a waiting game.

It is not too much to say that the Camera Club club-house, in Charing Cross Road, when completed, will compare favourably with the home of any scientific society in London, and will be an example that many social clubs may follow.

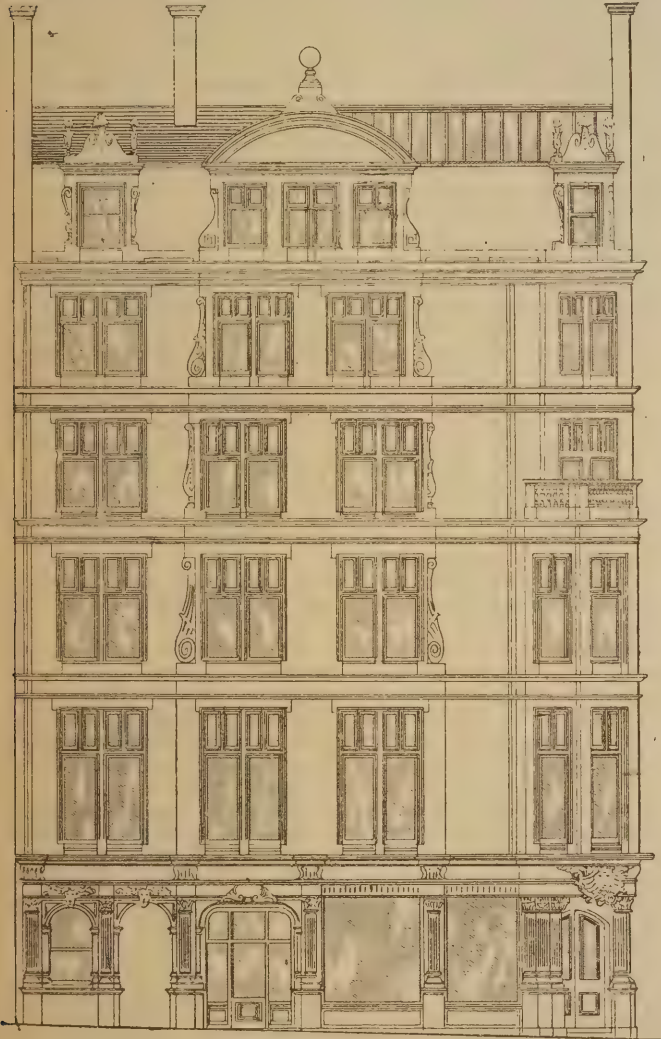
We do not know much of who has been the moving spirit in the work done to acquire so admirable a site, but we do know and can appreciate the work that Mr. J. Gale has done as Honorary Architect for the Club. The elevation is admirable, and after a careful conning over the plans we are satisfied that the arrangements for practical work and the social comfort of the members could not have been surpassed. We have the sanction of the Committee to publish the "word picture," contributed by Mr. E. Ferrero to the *Journal of the Camera Club*, a perusal of which will put our readers in possession of a most clear description of the finest club-house of any photographic society in the world.

"The new club-house is being built according to plans pre-



pared specially for the Club. At the outset a plan of the ground was given by the lessor to the new premises Sub-Committee (who had the fortune to have amongst its members an architect in Mr. J. Gale), and the plans prepared and proposed on behalf of the club were substantially accepted by the lessor's architect, Mr. F. T. Pilkington.

"In making the arrangements for the building, the Committee gave their first consideration to the requirements of a photographic club, and it will be seen from the set of plans sent with this number of the journal, that ample provision has been made for them. It was decided to have a number of separate dark-rooms as well as a larger room, where work not requiring the absolute exclusion of white light could be carried out. Then a studio and an enlarging room were provided for. A large, well-



THE CAMERA CLUB HOUSE.

ventilated room for meetings was also considered a first necessity. Then the claim of the Honorary Librarian to a good room in which the collection of books could be displayed and used to the best advantage had to be considered, and the second best room was devoted to this purpose. Finally, a workshop was provided, which will be fitted with a table, cabinet-maker's bench, and a complete set of tools, which have been kindly presented to the Club by Sir David Salomons.

"Having thus supplied all the possible wants of photography, it was decided to use the remaining space to provide on a moderate scale the usual attractions and conveniences of a social club. How far the Committee have succeeded in their endeavours to give the Club as useful and comfortable a home as circumstances would allow, will be seen from the plans, and we now propose to take our readers over the whole of the premises.

"The building is situated on the south side of Charing Cross

Road, at the corner of Cecil Court. It is of red stone and red brick, and it has a frontage of 51 ft. on the Charing Cross Road and 50 ft. in Cecil Court. The entrance to the Club is near the left corner of the building. On passing the glass swing-doors, the porter's lodge will be found on the left, and beyond that a stone staircase leads to the floors above. We will, however, proceed first to the basement. On reaching the bottom of the single flight of stairs, we find on our right a room containing the furnace, which will supply hot water to the whole of the house, and beyond that the servants' lavatory and dressing-room.

"The second door on the right leads to the cellars. The passage from which these doors open will contain a number of lockers, where members can keep their photographic materials. Turning to the left, we enter the daylight work-room. This is lighted from the roof, and will contain a sink, extending along one side of the room, with a number of taps for cold and hot water. This room is intended for washing negatives, developing platinotypes, toning, and all other operations not requiring a dark-room. Opposite this room is a long passage, giving access to nine dark-rooms, which will be provided with good ventilating arrangements, and lamps encased in concrete, so as to minimise the radiation of heat.

"Proceeding to the first floor, we find on the left of the landing the cloak-room, whilst the door on the right leads to the still-room. Opposite the staircase is the entrance to the principal room, a handsome hall, 43 ft. by 26 ft., and 14 ft. 6 ins. high. Special provision has been made for the ventilation of this room, and the manager of the optical lantern has obtained his heart's desire in having a space of the wall, 9 ft. square, painted white in place of a movable screen, for showing slides.

"Above the cloak-room a mezzanine has been arranged, which provides further accommodation for hats and coats.

"On the second floor a third cloak-room, with lavatories, is provided. The passage leads from the landing to the dining-room on the right, the billiard-room on the left, and to the library at the end. The height of this floor is 12 ft. On the third floor the building becomes much shallower. A corridor similar to the one below leads on the right to the Committee and Secretary's rooms, on the left to the leads above the billiard-room (which leads will have a trellis floor, and will be useful for printing), and finally to the workshop or lathe-room.

"The fourth floor is entirely taken up by the kitchen and other offices, and a bedroom and a living-room for a resident servant.

"On the fifth floor is a good enlarging-room, with a dark-room attached, and a fine studio 27 ft. long by 16 ft. wide, with a dark-room.

"A lift large enough for carrying coals and communicating with each floor from the basement to the kitchen will be provided, also speaking-tubes and electric bells. The house is to be wired for electric light, and a sufficient sum has been provided for the decorations, which will, however, not be added until next year.

"The fitting and furnishing will now occupy the attention of the Committee, and suggestions from members are invited, and will be carefully considered."

It will not perhaps be out of place to mention that the Camera Club Company, Limited, has been remodelled, and that the Directors are issuing preference shares to bear interest at the rate of 6 per cent. The Club is at the present time in a first-class financial position, but, of course, for so radical a change money will be required. Prospectuses, forms of membership, and other particulars may be obtained of the Hon. Secretary (Mr. W. A. Greene) of the Company, addressed to him at 21, Bedford Street, Strand, W.C. The Council hope to be in possession of the building for the winter season.

PAGET PLATES.—A correspondent writes:—"I developed in May some half-plate Pagets dated May, 1888. They gave first-class negatives, and as good as if fresh from the factory." This is a very excellent proof of the keeping qualities of these plates.

MESSRS. HORACE C. LEWIS AND CO., late of Ranelagh Street Liverpool, advise us that they have removed to more commodious premises at 31, Bold Street. They have a large stock of apparatus and photographic materials, and can supply every requisite both for the amateur and professional photographer.



## Letters to the Editor.

### "F. G. S." AND THE CONVENTION.

SIR,—At last Mr. Andrew Pringle has hoisted his true colours. He endeavours to blacken "F. G. S.'s" character in *anticipation* by deliberately saying he has no record of a stated fact, and asks for *proofs*; then saying, before "F. G. S." has a chance to offer his proofs, that if such proofs are not forthcoming we shall know what to think of "F. G. S." When the proofs are offered, instead of apologising to "F. G. S.," he says he simply asked for proofs as "a little *ruse* to find out for certain whether 'F. G. S.' and Dr. Emerson were laying their heads together to damage the Convention." Then he adds, "Now I know about it, and so do your readers." In short, he has attempted (1) to blacken a man's character in *anticipation*; (2) he has been guilty of a mean subterfuge; (3) he deducts a falsehood from his double-dealing, for there is not a grain of truth in the statement that "we laid our heads together to damage anything." I can prove this.

Now, after this it becomes necessary to say how I came to know Mr. Pringle.

In December, 1885, he, a perfect stranger to me, wrote and asked me to join the Convention movement. I declined. He wrote pages of gossip imputing unworthy motives to various clubs and persons (I can give proofs), and since then a corresponding acquaintance has been maintained by letters at long intervals.—Yours faithfully,

August 12th, 1890. P. H. EMERSON, B.A., M.B. (Cantab.)

SIR,—I have referred to my reply to "One of Hoi Polloi" (now revealed as Major Becher, R.A.) in your issue of July 25th, and I do not find a syllable savouring of sarcasm. My reply is contained in six lines of your print, and amounts simply to this: Is Mr. Newman's paper personal, or is it not? Surely this is a question of fact; my manner of reading the paper at the Convention may have been unfortunate, and led to the *impression* of personality recorded by Major Becher, but the paper stands in your pages, and it either is or is not personal to Dr. Emerson. Has Major Becher, I wonder, read Dr. Emerson's book, his letter in the *Photographic News* of last year, or his "Rejoinder" to Mr. Newman in *Photography*, of July 24th last? If so, will Major Becher give us his opinion of these productions? Will he say whether he finds any personality, in the "Rejoinder," for instance?

I have not seen the *Practical Photographer*, but the words "an attack on Mr. Emerson" are certainly getting nearer the truth than "a personal attack." If the words were "An attack on Dr. Emerson's works," I should say, "Right." It would be interesting to know who writes the article in question, whatever its tone may be.

Thin-skinned people should not get in the way of baited dogs, but, so far as I can see, Major Becher has not been bitten by me. If he feels hurt, however, I gladly apologise.

Mr. Bothamley's account of the events connected with the Convention tallies so accurately with mine—both appearing in your paper of August 8th—that I think I shall save future trouble, and prevent some people from getting into bogs of which we have lately had examples, by stating that no organised concert whatever has existed between Mr. Bothamley and me in the matter. We have had no communication as to what we should say in reply to our somewhat slippery critics in your columns. I see his letters and he sees mine for the first time in your columns.

I think your readers have now had enough of this wrangle started by the mental obliquity of "F. G. S." I for one do not propose to move further in the matter, or to take any further notice of what may be written on it.—I am, etc.,

AND. PRINGLE.

\* \* \* \*

### SCRAPS AND RAPS.

SIR,—The following random jottings on things photographic have evolved themselves from the smoke of my post-prandial pipe, and I send them from a tropic shore in the hope that they may interest my fellow shadow-catchers elsewhere.

(1) *Shutters*.—The most useful type, especially for hand-cameras, is, without doubt, the "blind" form. Put shortly, its manifest advantages are, lens fully utilised during exposure, easily set and released, vibration *nil*. Mine is used behind the

lens, the flange of which is screwed to face of shutter. Result: solidity, stops easily altered, and other lenses available to fit same flange.

I did not find the "time and instantaneous" pattern suitable for a hand-camera, though otherwise excellent, and I therefore use the simple "instantaneous" form. And this is how I give a time exposure with the latter. I have a loop at the end of the releasing string. This I hitch over a pin or screw fixed anywhere convenient about the camera, so that when so hitched the spring is held off the disc, *i.e.*, in the position it is when released. If, when so checked, you hold your hand-camera steady to the side, and with the left-hand pull out the setting cord and quickly let it go, you will obtain a rapid time exposure (or any length of time) free from jar. With a little practice the camera can be held steady for quite a considerable exposure. Of course, this method will give a double exposure to the foreground. This shutter is in such general use that this hint may be of use to many workers.

(2) *Dark-room Lamps*.—I recently spent some time perambulating London in search of a good, large safe lamp, free from odours, easy to manipulate and keep clean, and which would not raise the temperature of the dark-room to boiling point. I failed utterly. One well-known dealer told me no such article, except for gas, was procurable, and that it was therefore usual to fit up lamps as specially ordered. Every oil lamp I have tried has proved an utter abomination, and could give '880 ammonia points in the matter of "bouquet." I have solved the difficulty by fixing two knife-edge candle holders in a large grocers' box, with sliding door for various thicknesses of "medium," thoroughly ventilated top and bottom. Result: a flood of safe light all over the room, heat reduced to a minimum, and cleanly in every way. Cost of material, 6d. (Note.—A good, hard, short candle is wanted).

(3) *Developing Dishes*.—Mine I have provided hinged covers to about one-eighth of an inch larger all round than the dishes. Loose cards, etc., are a nuisance in the dark-room. Result of this trifling idea: clean, bright negatives, developed in bright yellow light, comfortably, and minus fog. My previous gropings in ruby light (?) were ruining my sight, and continually starting uncorked bottles of solutions, trays, measures, etc., on unexpected tours round the sink.

Mr. Tylar, please note, developing dishes with hinged or sliding lids of vulcanite are a real boon, and a rapid "reducer" of profanity.

(4) *Plates*.—Now for a deep growl. I venture to think most amateurs will agree with me when I say that, owing, perhaps, to rapid production, less care is taken by makers of dry plates than formerly. Only the other day I exposed six rapid plates of a popular brand out of same box. Three of them had large insensitive patches—two on the margin, one in the middle. The latter, a choice negative otherwise, is completely spoilt.

Pin-holes, finger marks, scratches on the film, fogged lines from the packing slips, and above all glass of varying thicknesses, are prolific causes of shocking remarks in my den. In lantern plates, too, it is a great pity makers do not select the glass with more care. Many a good slide has gone to penal servitude, *alias* my dust-bin, owing to bubbles or other flaws in the glass. These, with a peculiar "cussedness," appear of malice aforethought in the skies, as a rule.

(5) *Developers*.—Hydroquinone is in full swing, and deservedly. But I wish to caution workers in hot climates against the use of the *caustic* soda or potash, as the alkali. They are far too powerful, at any rate in Thomas' and the Ilford formulas, and will fog a plate beyond all hope. Use 2 ozs. each of the *carbonates* of soda and potash to 20 ozs. of water instead.

(6) *Camera Cases*.—Why are these persistently made heavier than the camera and slides they contain? Anything over half-plate, carried in the "good old way," is a toil of a pleasure. I now carry my whole-plate camera and cloth in a waterproof tweed knapsack. The slides go in a small hand-satchel, to which the tripod legs are strapped. Result: Division of labour and consequent profit. Shall we have to wait long before the "back" of a camera will form a roll-holder, with a flexible focussing screen drawn down, blind-form, as required?

(7) *Prints*.—I see some adherents to our dirty old friend, pyro, complain that quinol does not furnish such good printing negatives. Let them back their negatives with "papier végétal." They will have no "clear glass," but they will have the power of touching up, and also soft prints.—I am, yours, etc.,

St. Helena, August 9th, 1890.

H. W. B. BRUNO.



## MR. BULMER.

SIR,—In last week's issue of the AMATEUR PHOTOGRAPHER a person called "Engineer, Beamsley, Skipton," advertised a 7 by 5 Optimus R.R. lens. I wrote answering his advertisement. This morning I received this postcard, which I enclose, and do you think it safe to trade with him? He advertised several times in last issue, and his name turns out to be "Bulmer." Thanks to your exposure of a man of that name in the AMATEUR PHOTOGRAPHER, which I have taken in week by week for the last three years, I do not much like trading with him.—Yours, etc.,

August 11th, 1890.

J. YOUNG.

(COPY OF LETTER.)

"Fred Bulmer, 4, Brunswick Place,  
"Bridlington Quay, Yorkshire.

"Dear Sir,—The Optimus 7 by 5 R.R. is sold. I have an 8 by 5 R.R., by Laverne and Co., Paris, cost £4 10s., will take 50s., and send on three days' approval, upon receipt of P.O.O. to value; it is a good lens."

\* \* \* \*

## PACKING DRY PLATES.

SIR,—As the Rev. Mr. Mann properly puts it, our object is not to contradict each other merely, but to arrive at a satisfactory conclusion. I do not presume to contradict my brother workers, and, as I said, I should not have contributed to the discussion but for Dr. Johnson's surrender of his experience because somebody said so and so, and it is no part of my desire to influence plate-makers. The plan adopted by Messrs. Edwards, to which your correspondent, Mr. Gordon, refers, satisfies me. The plates I have tried of those firms who interpose paper have given me no satisfaction, and so I avoid them.

"Splashed emulsion" on the backs is not dangerous so far as I, and apparently Dr. Johnson, who uses film to film, find, though the Rev. Mr. Mann "fears" otherwise.

Mr. Carl Otto Weber's letter really reads like an advertisement; any how, in spite of its analytical tone, I am not in the least convinced. He gives us too many arguments, and what we want is not arguments or fears, but facts.

In conclusion, I would suggest that a grain of experience is worth a ton of theory.—I am, etc.,

A. E. VENN.

August 12th, 1890.

\* \* \* \*

## PRICE OF PLATES.

SIR,—Possibly the knowledge of the fact that two shillings per dozen is the price charged by the local dealer in Ilfracombe for white label Ilford quarter-plates may not be altogether an unacceptable tip to amateur photographers who may be wending their steps hitherward.—Yours truly,

Ilfracombe, August 11th, 1890.

CAUGHT.

NOTE.—The advertised price is 1s. 4d. for these plates.—ED. A. P.

\* \* \* \*

## SAMUEL FRY AND CO., LIMITED.

SIR,—Will you kindly allow us to notify the public through your columns, that we have purchased the business, goodwill, and stock-in-trade of Samuel Fry and Co., Limited, of Chandos Street and Kingston-on-Thames.

The business will be continued at both places as before, under the style of the Fry Manufacturing Company, of which we are the proprietors.

Full announcement will be made in your advertising columns, to all our customers and friends generally.

Thanking you in advance for your courtesy, we are, yours faithfully,

S. HERBERT FRY.

A. E. HAYMAN.

5, Chandos Street, Charing Cross, London, W.C

August 11th, 1890.

\* \* \* \*

## PHOTOGRAPH EXCHANGE CLUB.

SIR,—I propose with your assistance to ascertain the views of your subscribers on, I believe, a new departure, by suggesting, and if approved of, starting, a club under the above heading.

The club to be for the purpose of the exchange (permanent, not temporary), through the post, of unmounted prints, lantern slides, and any other photographic productions of the members,

between themselves, confined at present to say twenty members, a small annual subscription to defray cost of postages and printing, etc. Only persons who send in work of a certain standard to be eligible for membership. Not exceeding three per month sent in by each member in exchange for a like number of similar size and description. A list of titles of all prints, slides, etc., accepted for exchange to be sent to each member monthly.

Possibly, if started, experience will suggest some modifications and alterations in the future, but should you, Sir, approve the idea and publish the scheme, and a sufficient number of replies be sent to me, I propose to send to applicants a draft copy of the rules for their consideration, on receipt from them of a stamped address envelope.

Lastly, I suggest that if the Editor of the AMATEUR PHOTOGRAPHER can find time, you should be asked to act as final referee in case any questions should arise as to standard of work, etc.—Yours truly,

J. S. HAWKER.

Mutley House, Plymouth.

\* \* \* \*

## USES OF PHOTOGRAPHY IN THE HOME.

SIR,—I was much interested in Mr. Woodbury's contribution to a recent number. I am sure many of your readers would be very glad to purchase the skeleton frames of lanterns, lamps, and candle shades, window screens, etc., for transparencies, if some enterprising firm would undertake their manufacture and retail them at a moderate price. The difficulty and expense in getting these things made singly or in small quantities deter many from attempting to produce them.—Yours truly,

E. J. JACKSON.

## Chemistry for Photographers.

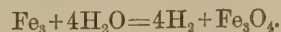
By C. H. BOTHAMLEY, F.I.C., F.C.S.

(The Yorkshire College, Victoria University).

(Continued from page 65.)

POTASSIUM decomposes water at the ordinary temperature in the same way as sodium; half the hydrogen of the water acted upon is liberated, and potassium hydroxide or caustic potash, KOH, is formed. The hydrogen which is liberated takes fire spontaneously and burns with a violet flame, the colour being due to the presence of some potassium vapour. The only other metals which decompose water at the ordinary temperature are a few rare metals closely related to potassium and sodium. Other metals will not act on water at the ordinary temperature, but will decompose it at its boiling point, or if steam is passed over the strongly-heated metal.

EXPERIMENT 36.—Arrange an apparatus as in fig. 15, but fill the tube with iron turnings instead of copper, and in place of the bottle put a flask of medium size, (4 ozs., or 120 c.c.) half filled with water, and fitted with a cork carrying a tube bent at right angles which fits into the end of the straight tube. Heat the iron turnings to redness, then boil the water in the flask, and allow the steam to pass over the red-hot iron; hydrogen is given off, and is collected in the usual way, whilst the oxygen of the water combines with the iron, forming the black triferrous tetroxide, Fe<sub>3</sub>O<sub>4</sub>, which remains in the tube.



This method is often used for preparing hydrogen in large quantities, the iron turnings being placed in a gun barrel which is heated to redness.

When metals decompose water at the ordinary or a comparatively low temperature, only half the hydrogen of the water which is acted upon is liberated; the remaining hydrogen and the oxygen combine with the metal and form a hydroxide, that is, a compound of the metal with one or more groups OH, such as sodium hydroxide, NaOH, magnesium hydroxide, Mg(OH)<sub>2</sub>. When, on the other hand, as in the preceding experiment, water is decomposed by a meta



at a high temperature, the whole of the hydrogen is expelled and an oxide of the metal is formed.

EXPERIMENT 37.—Place a few short pieces of clean magnesium ribbon in some cold water. *Observe* that no action takes place. Take out the magnesium, and put it into a small quantity of a solution of copper sulphate. *Observe* that the magnesium becomes covered with a dark coating of copper. Pour away the copper solution, wash the magnesium gently two or three times with water, and then place it in some fresh water. *Observe* that a stream of small bubbles of gas rises rapidly from the metal; this gas is hydrogen.

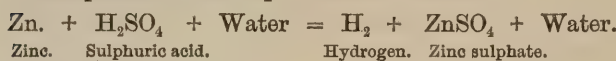
From this experiment we learn that a metal which cannot itself decompose water may yet do so if it is in intimate contact with some other metal.

EXPERIMENT 38.—Repeat the preceding experiment, using zinc in place of magnesium; the decomposition of the water will take place more slowly, but will easily be seen, especially if the liquid is gently warmed. Similar results are obtained with magnesium and platinum or zinc and platinum, and these decompositions and others of a similar kind are of very great importance. In the case of water, the copper or platinum undergoes no change; the zinc or magnesium is converted into a hydroxide. The two metals together seem to form a kind of minute galvanic battery which is capable of effecting decompositions which the one metal alone cannot effect.

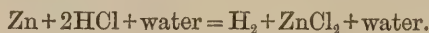
We now come to the second class of methods of preparing hydrogen, *i.e.*, the action of acids on metals.

EXPERIMENT 39.—Place two or three grammes of zinc in a test-tube, and pour on it some sulphuric acid diluted with about eight times its own volume of water. *Observe* that rapid effervescence takes place, and that a gas is given off which takes fire with a slight report when a light is brought to the mouth of the tube. After a time all the zinc dissolves. Filter the clear liquid from any undissolved black particles, and slowly evaporate the clear liquid in a porcelain dish until a slight film begins to form on the surface. Set it aside, and after some time you will find that needle-shaped crystals have formed. These consist of a new compound, *zinc sulphate*.

The equation which represents the reaction is—



EXPERIMENT 40.—Repeat the preceding experiment, but instead of sulphuric acid use hydrochloric acid diluted with about three times its bulk of water. Hydrogen is given off as before, and when the zinc has dissolved, the liquid contains *zinc chloride*  $\text{ZnCl}_2$ .



EXPERIMENT 41.—Make a similar experiment with dilute sulphuric acid and some small pieces of magnesium ribbon. The metal is converted into *magnesium sulphate*  $\text{MgSO}_4$ .

EXPERIMENT 42.—Make a similar experiment with dilute hydrochloric acid and magnesium; the metal is converted into *magnesium chloride*  $\text{MgCl}_2$ .

The equations in the case of magnesium are precisely similar to those which represent the action of zinc.

Many other acids, but not nitric acid, yield hydrogen when brought in contact with metals. Only a certain number of metals, however, will act in this way. Copper, mercury, silver, lead, gold, and platinum, for example, have no action on dilute hydrochloric or sulphuric acid at the ordinary temperature.

EXPERIMENT 43.—Repeat experiments 39 and 40 with scraps of copper and lead.

EXPERIMENT 44.—In order to prepare a large quantity of hydrogen we will use the re-action between zinc and dilute

sulphuric acid. The apparatus required is shown in fig. 16. A bottle or flask is fitted with a cork which carries a tube-funnel reaching to the bottom and a bent delivery tube which ends just below the cork and passes into the pneumatic trough. The flask or bottle should have a capacity of about 500 c.c. (16 ozs.) Place in it 50 grammes of granulated zinc, and pour down the funnel-tube sufficient dilute sulphuric acid to cover the zinc and rise above the bottom end of the funnel-tube. Hydrogen will begin to come off at once, but must not be collected, because it is mixed with the air which was in the flask. After a little time the air will have been swept out by the hydrogen, and

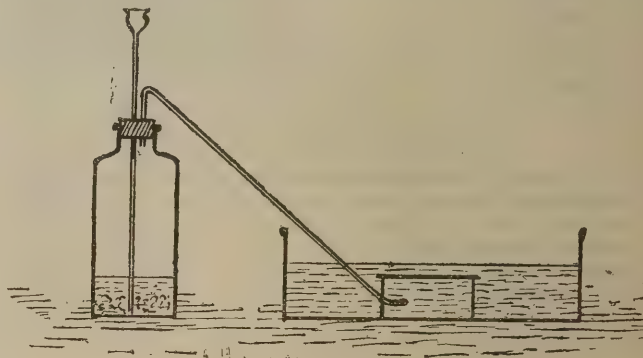


FIG. 16.

we may collect a small quantity of the gas and test it. Fill a small test-tube with water in the trough, and allow the hydrogen to rise into it. When full, place your thumb on the mouth of the tube, lift it out of the water, remove the thumb, and bring a light to the mouth of the tube, keeping it mouth downwards. If the hydrogen takes fire with only a slight report, and continues to burn in the tube, the gas may safely be collected; if it ignites with a sharp noise, it is still mixed with air. In the latter case, allow the gas to escape for a short time longer, and test it from time to time until it ignites quietly.

As soon as the hydrogen is sufficiently pure, collect four bottles of it over the trough, as in Experiment 30.

(To be continued.)

## The Electric Light and Photography.—VIII.

By T. C. HEPWORTH, F.C.S.

(Continued from page 83.)

THE incandescent lamp is, as we have seen, limited in its application to lantern work, for the reason that it is, compared with the limelight, wanting both in intensity and in concentration; but it is quite within the bounds of possibility that some substance may be found other than carbon which will obviate these disadvantages. In the meantime, the arc system is the one to which we must look for the extreme brilliancy which is required, and absolutely necessary where a large disc is in question. The largest disc to which we can at present point as an example is that used during the photographic exhibitions which take place annually at the Crystal Palace, and which measures about thirty feet in diameter. This, although immense for most places, looks small in the large theatre in which it is placed, and there is little doubt that if a much larger one were required, no form of limelight would give sufficient brilliancy to show the pictures effectively. It is here that the arc lamp would present such a great advantage over previously



used luminants, and there are now few difficulties in the way of its use, especially in a place where the apparatus for producing the current is already installed.

Some writers have asserted that lantern pictures of a certain density are fit only for exhibition by limelight, and that for oil lanterns they should be of a much less intense character. It has also been suggested that the electric arc lamp is of such a searching nature that slides for exhibition by it must be purposely prepared so that the image shall be of the blackest nature. I am certain that this is altogether a mistake. A good slide will show well whatever be the nature of the light employed, and is generally best when the light is most brilliant. A good slide should be full of delicate detail, and, while of good density, should exhibit in its highest lights absolutely clear glass. Everyone knows that the less of this clear space there is in a picture, the better the effect; but there are some processes where it is difficult to get them at all. Such slides will not show well by any light, and should be at once condemned, unless nothing better of some wanted subject is procurable.

I have already hinted that in the electric lantern used by the Society of Arts—the only one of its kind at present employed in London—there is some difficulty in keeping the light spot exactly central. I judge merely from what I noted on a recent occasion when I formed one of the audience which listened to a lecture there, and the difficulty manifested itself by an occasional shading of one side of the disc to the great detriment of the picture which happened to be shown at the time. Less critical persons would not notice, perhaps, that anything was wrong, and the exhibition generally, with that exception, was well enough. But the real test of a well-centred light is not found in its employment with the ordinary optical lantern—when a certain divergence is, as in the case quoted, allowable, if not exactly desirable. If, however, the same light were tried with a good lantern microscope, fitted with a high power, its shortcomings would be immediately accentuated, for the slight divergence noticeable in the lantern projection would become so magnified in the microscope that the image would probably disappear with every flicker of the arc from one side of the carbons to the other.

In order to obtain the greatest amount of light from the arc lamp for projection purposes where it is necessary that the rays should strike in one direction only, particular attention should be directed to the position of the carbon pencils with regard to one another. If, as in most regulators for general lighting, the one carbon is immediately above the other, they gradually assume a shape, under the action of their own intense heat, which prevents the best results being attained. It is, of course, impossible to examine the arc light with the unprotected eye, and very little of the phenomena attending it can be seen even if the protection of smoked glass is invoked, for the glare is far too intense. But an image of the burning carbons (see fig. 1) can easily be thrown on a screen by the interposition of an objective lens, and the picture thus formed is a very beautiful one. The upper or positive carbon wastes away at double the rate of the other, and as it wastes, a cavernous opening appears at its end. The negative or lower carbon, on the other hand, preserves, as it wastes away, a pointed form. Around and between them is seen a faint luminosity of violet hue—this is, in fact, the arc itself—which gives very little radiance. The brilliance really comes from the white-hot ends of the



FIG. 1.

carbon rods, and it stands to reason that if the crater in the one reaches a certain depth, its edge must obscure a perceptible amount of the available light.

This was first discovered about twelve years ago, at the time some experiments were being carried out at the South Foreland, in order to ascertain the best disposition of the carbons for lighthouse purposes. An American Commission also at one time busied themselves with the same question, and both English and Americans reported that there is a great loss of light if, when the radiance is required in one direction only, the carbons are placed exactly one above the other. This led to the position being adopted which is shown in fig. 2, and which results in a gain of light of about 66 per cent. A still further gain is obtained by sloping the carbon rods, while at the same time the lower one is in advance of the upper one, so that the interior of the positive crater is turned towards the direction in which the light is required to stream. This idea is well carried out in a form of regulator which has many other valuable points which fit it remarkably well for projection work. To this regulator I will next direct the reader's attention.

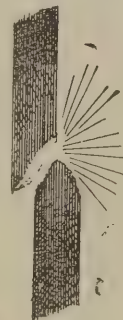


FIG. 2.

(To be continued.)

## London Stereoscopic Company.

LAST week having an hour to spare, we spent it in inspecting, without the trammels of the "Press view," the admirable new premises of the London Stereoscopic Company in Regent Street. We have in these columns already referred to the extensive additions made by the Company to their premises, but we really had no idea, nor should we have had any conception of the work done therein had not Mr. Lilie Mitchell, the general Manager of the Company, placed his time at our disposal and favoured us with a private view.

The Stereoscopic Company must be acknowledged by all to have been the pioneers of amateur photography, and at the present time it is not overstating the case in saying that they have upon their books as large a number of customers as any firm in the trade. Theirs is particularly a West-end trade, and it is not too much to say their *clientèle* are to be found in every section of society, including the Royalties, the nobility, army and navy, law, letters, and the arts and sciences.

The Company deserve support for their enterprise. Their name is not new to the readers of the AMATEUR PHOTOGRAPHER. We have had on many occasions to call attention to their enterprise, and it will not be out of place to mention that they were the originators of exhibitions of work done by amateur photographers. The exhibitions held by them have never been surpassed, and at the time the first one was held, so objectionable was the idea to some of the conductors of the older photographic journals, that not only did they not notice them editorially, but refused advertisements. The AMATEUR PHOTOGRAPHER supported the movement, the daily and weekly papers freely noticed the enterprise of the Company, and on all sides the exhibitions were voted a great success.

Since that time many scores of exhibitions have been held promoted by societies and others, and we have every reason to believe that the Company will, ere long, project yet another amateur photographic exhibition. Should they, we are sure they will receive the very hearty support of many of our readers.



The Company having now completed their new premises, they are extending that section which appeals more particularly to our readers, and before mentioning the business proper we will endeavour to give a short sketch of the procedure adopted with purchasers of photographic apparatus.

We will surmise that the customer is starting in photography. He will receive at the hands of Mr. Butler Humphrys, or those under him, the very best advice as to what to buy, according to the amount he may wish to spend, the purposes for which he requires the apparatus, and the country in which he intends to use it. Army and Navy men going abroad are now largely taking up photography. The apparatus having been selected, the customer and his kit are taken upstairs in the lift to the instruction room, and are there shown the uses of each piece of apparatus by a thoroughly qualified instructor. The apparatus having been put together, the instructor proceeds to take a photograph—portrait, view, or instantaneous, or all, according to the capabilities of the apparatus and the requirements of the customer. The photograph is taken on a dry-plate or film in accordance with the probable practice of the purchaser. These are developed, and all the manipulatory processes gone through, and the customer can take his apparatus away, by this time thoroughly satisfied that what he has bought will do all that he has been told. He may, and probably does, come and have a further lesson, and is allowed the use of most elaborately appointed dark-rooms, chemicals, and instructor's aid *free of charge*, when he so pleases. All instruction is given privately, and we can only think that this method of teaching, now that it is made known in these columns, will largely increase the Company's business. We might add that in the instruction-room a most ingenious arrangement has been made, by which a tripod can be fixed outside, and an instantaneous shot taken of Regent Street, looking north.

The dark-rooms are fitted with the electric current, and have, of course, the usual dark-room lamps, with incandescent lamps, the switching off of which instantly lights an ordinary glow-lamp fitted in a holder, which can be carried anywhere in the room. The electric light, as fitted, is a great luxury, and so are the little spring seats which are pulled out from the wall, as it seems, in front of the developing sinks. The rooms have excellent ventilation, and are painted in orange chrome, which gives a soft and equable light. The dark-room lamps have each two clear glasses, two orange glasses, and a piece of canary medium. The front half of the bulb of the incandescent lamp is silvered, so that the light is all reflected on to the back of the lamp, and so re-reflected through the non-actinic media.

Should the customer have a knowledge of photography, and purchasing, say, one of the Company's well-known "Black-band" lenses, he can interview the instructors and have the lens tried.

We have said enough to show that in the extensive alterations and extensions made the Company have been thoroughly mindful of the wants and requirements of amateur photographers, and it is due to them, that in a journal devoted to the special interests of that class of workers, prominence should be given to the advantages offered by them.

It will now be our pleasure to say a few words upon the general arrangements of the buildings. We were received upon the ground floor, and conveyed by means of a most elegant lift to the top of the building, and were fortunate enough to find Mr. Lilie Mitchell waiting our arrival. He at once took us into the special studio that is under the charge of an accomplished artist, and in which "Home portraiture" forms the principal practice. Groups or single

figures are posed by the artist, and the operator act under his instruction; furniture and bric-a-brac of the most costly kind take the place of the papier-mache abominations of the photographic studio; the most luxurious lounges are pressed into service, in lieu of "posing chairs," "imitation stone seats," etc.; ferns and palms, bright and fresh, as brought from the conservatory, meet our view, instead of bad imitation begonias and impossible palms. All is real and true, no shams, but just those surroundings that we have in our home assisted by the most perfect arrangements for lighting [that ingenuity and experience can devise. The wall hung with *real* musical instruments, the popular banjo, the intense guitar, the sentimental mandoline, and the soul-stirring violin, are all ready as aids to the artist in his composition. A peep in a sixteenth-century black oak chest revealed soft stuffs in satin and silk, bright scraps of oriental pattern, muslins and drapery to deck the form divine, which will, we are sure, gladden the heart of many an one who will come under the hands of the Company's artist, and help out the idea of "home portraiture."

On the same floor is the Company's large studio, in which all the celebrities of the day have been photographed, from the Rt. Hon. W. E. Gladstone, to the mighty Sandow and the Ogre—from our Spiritual Peers to the heroine of the latest *cause célèbre*. The dressing-rooms are replete with all the luxuries of well-appointed boudoirs, and are in electrical communication with the studios.

The grand saloon on the first floor is a most handsome apartment hung with magnificent specimens of the Company's productions, from the miniature to the panel portrait for wall decoration. The decoration is pure Grecian, and the whole of the designing has been done under the direction of Mr. Mitchell. We have already devoted much more space than we intended, but are sure that those who visit the Stereoscopic Company's premises in Regent Street will agree that we have not said one word more than the Company's enterprise deserves.

## Holiday Resorts and Photographic Haunts.

### THE VALLEY OF THE DEE, ABERDEENSHIRE.

By SURGEON D. WARDROP.

THERE are perhaps few places where the amateur photographer can so easily get a large variety of work packed into the smallest possible compass as in some of the Scottish Highlands, particularly those of West Aberdeenshire. There we have the most perfect mountain scenery, beginning with the majestic cairngorms, snow-capped nearly the entire year, and ending with the fir-covered slopes which line the valleys and form the dark shading of so many Highland pictures. There waterfalls, rocky glens, together with beautiful water and foliage effects, may be met with at every turn. There, if animal life be wanted to complete a foreground, what is more picturesque than the black-faced sheep with its curling horns, the intelligent collie watching his flock, or the drove of sturdy Highland cattle? These may, one and all, be easily met with. Perhaps one of the greatest charms of this part of the world is that at present it is not so overrun by the amateur photographer as many of the celebrated beauty spots of England and Wales are, and that consequently one's views are generally new, while if life forms a portion of the picture, there is less constraint in the attitude of the subject. In some parts of England, the New Forest for example, it is difficult to find a picturesque old woman, a group of children, or even some of the lower forms of animal life, that have not already been photographed, and there is a stiffness of pose, the well-known "I am being photographed" sort of look about their attitude, which makes their presence in a picture anything but an artistic addition. I well remember, while trudging with a brother photographer along a road in the New Forest



near Lyndhurst, meeting a waggon laden with freshly cut fern, the driver of which on seeing the cameras over our shoulders, promptly stopped his horses with the query, "I suppose you'd like to photograph the cart, sir?" There was a distinct look of surprise on that worthy man's face when we thanked him but declined his offer. Poor fellow! he had probably been photographed every day that summer, and had got to look upon it as part and parcel of his lot.

Partly in the search of novelty, but chiefly influenced by a desire to revisit old haunts, I started during a recent July, the wettest month of a wet summer, for a short trip to Aberdeenshire. In rain the tour was commenced, in rain was it carried out, and in rain was it concluded.

When starting on a tour of this kind the great question is what to take in the way of apparatus. Where there is a good deal of walking to be done, and glass plates are used, a half-plate is the biggest camera that, complete with its backs and lenses, can be conveniently carried. The whole-plate is the better size, but, unless films are used, it is far too heavy to carry on a long up and down hill walk. The enjoyment of a photographic trip, like everything else, depends on one's being perfectly comfortable, and with anything over a half-plate kit this is not to be obtained. One little result of experience may be here given. The leather cases so usually sold to contain the camera and its backs, etc., although very necessary to preserve their contents while travelling by rail or carriage, are a very useless weight while on tour; it is best to put the camera into its focussing cloth, with a small rug strap round it, and to carry the rest of the kit in a bag slung over the shoulder. The weight of the camera does not cut the hand, and that of the other apparatus never tries the shoulder.

Arrived at Aberdeen, my first halting place, preparations were made for some work among the herring fleet, which were just getting into full swing. The daily departure and arrival of this fleet are among the sights of this large fishing centre of Scotland. On a warm summer's day, with not too much wind, the scene of the former is most interesting. The boats all cast off from the jetties in rapid succession, and, if a stand be taken on the south side of the harbour entrance, a magnificent view is the result. Crowds of large herring-boats with deep tan-coloured sails fill the foreground, with here and there a white-sailed boat to light up the scene. In the distance are the jetties crowded with life, the boats getting under weigh, and behind all, the town with the sun shining on the white buildings. Excellent studies of individual boats, or groups of boats, may be obtained with the greatest ease from one of the piers, and after a morning spent at this, many pretty and interesting "bits" may be got about the harbour, groups of fishermen, nets, boats, etc.

To get the best pictures of the herring fleet, one wants quick plates and a time shutter. Sometimes the subject requires a rapid exposure, as when one of the many steam herring boats or trawlers crosses the field of slower-moving sailing boats, but more often a longer exposure with a smaller stop gives the best result. A very fine series of these views can always be managed on a Monday, for then the entire fleet, some 600 or 700 strong, always leave together. No work is done upon the previous Sunday. The Scotch fishermen will not even "whistle upon the Sabbath."

Apart from pictures to be made in the harbour, there is ample scope for the photographer in and about the granite city itself. The old town of Aberdeen makes a very pleasant day's work. Here is King's College with its grand old Crown Tower, one of the finest extant; St. Machar cathedral, a quaint old building which wants a wide-angle lens to do it justice, as the situation for the best view is very cramped. An interior may also be obtained here, but it is more curious than beautiful. Leaving these, and making for the river Don, one may pick up a pretty cottage "bit" on the way to the celebrated old bridge over the river, the Brig o' Balgourie. This makes a beautiful picture, but is too well known to make a reproduction here interesting. Like all pictures, there is a great deal in the lighting, but apart from all artistic aid it is one of nature's own pictures. The photographer has but to rig up his apparatus and take it. A cottage with some boats and nets hung out to dry, quite close to the bridge, makes a pretty subject, but is often missed. On the way back to Aberdeen a nice street view may be obtained of the old town itself.

Another very pleasant day was spent by starting early from Aberdeen for Stonehaven, and then pushing on to the fine old ruins of Dunnottar Castle, a grand pile of buildings standing out grim and stately on massive black cliffs washed nearly all round

by the breaking surf. After securing a couple of pictures of the ruins, although a dozen might as easily be taken, steps were retraced, and Stonehaven again visited, where a pretty picture or two was made of the harbour. Herring fishing is here also carried on, but in a very different way, and on a much smaller scale. Leaving Stonehaven, the camera must be shouldered for a four-mile walk to Muchalls, where an unlimited amount of splendid pictures of rock scenery may be secured. Caves, gullies, curious formations and giant cliffs here abound, and the difficulty is to know what to take first. An afternoon train brings one back to Aberdeen rather tired, for some eleven or twelve miles have been honestly walked.

Having thus pleasantly spent two or three days, the main object of the trip must be borne in mind, and a start made for the far-famed valley of the Dee, or, as it is usually called, the Deeside. Here, within a few miles of Aberdeen, there is much food for the camera, but it is better to push on. Banchory was therefore made the first halting-place. This is a charming little village, and two or three days passed very quickly. The two rivers, the Dee and the Feugh, formed the chief subjects for photography. Attacking the former, a pretty view was obtained below the village, looking up the river, and then by wandering a mile or two down-stream some pretty river-bank scenes were secured. On the way back, some excellent woodland pictures presented themselves. The next day was devoted to following the windings of the River Feugh, a beautiful stream which runs into the Dee at Banchory. Shortly before its termination, it is crossed by a curious old bridge, the Brig o' Feugh, and just above the bridge presents a series of falls which make exquisite photographs. Higher up the stream, dense foliage lines the banks, while rocks, miniature islands, and heavy shadows all combine to form pictures that delight the photographic eye.

The charms of Banchory having worked sad havoc among the plate-boxes, a fresh start was made, and, passing through some twenty-five miles of beautiful scenery, Ballater, the terminus of the Deeside railway is reached. Beyond a view or two on the river, and one or two on the northern side of the town about the coach road, there is not much to be done in Ballater itself, so it is best to set off at once by coach to Braemar, or better still, to leave the coach at Crathie with the camera and send the baggage on to an hotel called the "Inver Arms," some three miles further on. The road up from Ballater to Crathie is full of beauty, a perfect panorama of exquisite pictures from start to finish, and it is with difficulty that the longing to get down and begin work at once is restrained. After some seven or eight miles of this most lovely road our goal is reached, and operations are commenced by taking Crathie Church, a very quaint, very ugly, but very celebrated little building standing on a rise just over the road. Here Her Majesty invariably attends service during her stay at Balmoral. Leaving the church and walking towards Braemar, a pretty little bit is secured just off the road on a small stream called "Crathie Burn." All brooks are "burns" in Scotland. Travelling on, we next come to Balmoral Castle, on the far bank of the river, and looking a perfect gem in its dark setting of fir-covered hills. Beautiful as it looks, it is somewhat difficult to make a good photograph of, unless one leaves the road and goes up the hills to the right, when a grand view of the castle and distant hills can be obtained. Getting on to the road again, which winds along by the river, many pretty pictures can be made, and at the end of a short three-mile walk the "Inver Arms" is reached, a snug little inn, where one is made thoroughly comfortable at a minimum of cost. Three days can be spent here, or longer, and much good work done. Beautiful pictures can be got about the river side and along the roads, or the camera can be boldly shouldered and the hills and forests explored with some capital results. The falls of the Garrawalt and the magnificent forest of Ballochbowie are within easy walking distance of Inver.

When the beauties of this neighbourhood are exhausted, a tramp of about five miles brings one to Braemar. On this road the chief places of interest are the old bridge at Invercauld, the Lion's Face Rock, and Mar Castle, together with innumerable roadside studies. Braemar itself is too well known to need much comment; but there is much to be done that as yet the professional has left undone. One of the best walks that may be taken with the camera is, starting early in the morning, to the Falls of Corriemulzie, on the Earl of Fife's estate, where a lovely though somewhat hackneyed picture of the falls may be obtained. Then on to the Linn, a narrow, rocky gorge, where the river comes thundering through, and where sometimes



myriads of salmon are seen disporting themselves in the deep pools below the rapids. Crossing the river, the Linn of Quoich, another famous scene, is next visited, and Braemar reached by again crossing the river. This is a long walk, but a very pleasant one, and every yard of the road would make a picture. Some fine distant views of the Cairngorm range, with Ben MacDhui towering in their midst, can be easily secured, and all along the river side are charming water pictures.

To enumerate the excursions that can be made with Braemar as a head-quarters, and the views that can be obtained, is far beyond the scope of this paper. As I have already stated of another charming locality, the difficulty is to know what to take, the choice is so varied. Perhaps the finest subjects that can be obtained are the early morning mist effects, where each mountain has its wreath or cap of white fleecy mist. The lights are then also very fine for this sort of work. These effects are not, however, easy to obtain, for Highland weather is not a reliable institution, and last summer never gave the expectant amateur a chance. A lowering sky and frequent rain was the fortune of the writer.

Although the valley of the Dee extends several miles beyond the Linn, this was made the limit of the trip, for to proceed farther the photographer must be a very expert pedestrian, the distances being great, and inns few and far between. In addition, the stock of plates was exhausted, and the weather got worse daily.

Some six-and-thirty plates were exposed, and about thirty fair negatives were the result. The chief faults were those due to the necessarily long exposures, movement of trees, etc.

Notwithstanding the unfavourable conditions under which the tour was carried out, much pleasure and considerable experience were derived from it. Perhaps amongst the latter a valuable wrinkle was that, no matter how bad the weather, fair pictures may be obtained.

\* \* \* \*

### SEVERN BRIDGE AND DISTRICT.

By J. PROBERT.

If any amateur photographer is wishful for a quiet little resort, let him pay a visit to the Severn Bridge Hotel, on the Midland and Severn and Wye Railway, about five minutes' walk from the Severn Bridge Railway Station. It is within easy reach of Speech House, and in direct communication with Symond's Yat, Tintern Abbey, Chepstow Castle, and a score of other places of great interest. The far-famed Severn Bridge can be photographed from the lawn in front of the hotel, reaching nearly to the edge of the Severn, which is very broad at this spot. Sharpness is just opposite, and very large vessels laden with corn, etc., are constantly steaming into the docks to discharge their cargo. Lydney, with its famous coal-lading docks, is also within easy walking distance. The landlord, who has sailed to all parts of the world, is a skilled taxidermist, and his collection of birds, fishes, and reptiles will amply repay anyone for a visit. The country round, and the general scenery, afford ample scope for any photographer, whether amateur or professional. The Severn Bridge can be shot at from half-a-dozen different sites, but I believe the best place is from the front of the hotel. The Great Western Railway runs close at the foot of the garden, and anyone whose ambition is to take flying shots at railway trains could not select a better place, as scores of trains run past during the day. A dark-room has recently been provided for the use of amateurs and others. As a health resort, and a paradise for amateur photographers, I do not think there is another such a spot to be met with in the county of Gloucestershire.

THE *American Journal of Photography* gives the following receipts:—"For Filling Holes in Negatives: For insensitive spots, torn film, and similar places where the negative from any cause is not transparent and ought not to be, the following remedy will be found useful: Rub down a little fine black-lead (dry) until it is perfectly smooth, work up to a suitable consistency with a thin gum, and apply with a sable point. For re-touching large work this will be found a very useful adjunct to the pencil. For Spotting: Let your Indian ink be of the best quality. Rub it up to the desired tone with neutral tint, in oil of spike, on a ground-glass slab. Use no water. Use a fine camel-hair 'pencil,' No. 2 or 3, dipping it in a bottle of the oil of spike, to dilute the colour as required in working. You can then burnish the prints as much as you like without any fear that the spotting will 'lift.'"

## Science Notes.

THE references in Stanley's book—"Darkest Africa"—to photography are disappointing. Photographs appear to have been taken, but by whom, and with what results, we are not told. Since in one place Mr. Stanley speaks of the "spare negatives" (presumably some boxes of dry plates) having been left behind, it would appear that *he*, at all events, has not plunged deeply into the mysteries of the art. But what a splendid chance the expedition missed for want of a skilled photographer! The illustrations in the two volumes of the book are distinctly disappointing; and according to the publisher's statement, they appear to have been drawn chiefly from oral instructions conveyed by Mr. Stanley to the artist. Half-a-dozen photographs would have been worth the lot.

After trying several ways of backing plates, I have arrived at the following as the most effective and convenient. Buy a few ounces of burnt umber (a dry paint sold at 1s. per pound), also a bottle of gum, and half a pint of methylated spirit. Pour a little gum in a saucer, and gradually mix with it some of the burnt umber, incorporating the two by pressing with a knife. Add enough spirit to make the whole into a thick pasty cream. Tie a little wadding inside a piece of wash-leather, so as to make a "dabber," and then (in the dark-room) smear the brown mixture over the back of the plates. It is not necessary to spread it right up to the edges. This "backing" will dry in two or three minutes, and the plates can then be put in the dark-slides. It is as well to lay a piece of red blotting paper or black paper upon the back of each plate (in contact with the "backing") to keep the latter from any possible chance of dirtying the dark-slides. Before development the "backing" must be removed, which can be readily done with a damp sponge.

The August number of *Knowledge* contains some reproductions of photographs taken by Mr. E. E. Barnard at the Lick Observatory, of the Milky Way and of various nebulae.

An article entitled "An August Ramble down the Upper Thames," by Mr. Reginald Blunt, which appears in this month's *English Illustrated Magazine*, is doubled in value by the capital engravings "from photographs taken by the writer." At Water Eaton House Mr. Blunt had the following experience:—"Approaching the back door (the house fronts away from the river) I gained the attention of a busy little maid, and asked for leave to photograph the house. Mary disappeared to consult the master, and soon returned, saying, 'That'll do, thankye,' as she quietly closed the door in my face. This ambiguous oracle was somewhat disheartening, till a further appeal for enlightenment discovered that I was presumed to be the "fellow from Crickdale" calling for an order, and that the master was not desirous of buying copies of an original of which he was in sole possession. Our colloquy brought him to the door, and on ascertaining that I was merely an amateur asking a favour, his house was generously placed at my disposal, with the intimation that I might take as much of it as I liked, fore and aft, sideways and anyway, a liberal permission of which my small stock of plates would not allow me to take full advantage." Anyone seeking a new place for an outing with the camera could not do better than read Mr. Blunt's article.

The "Bedford gates" are at last to be cleared out of the streets of London, which they have obstructed so long. Our descendants will scarcely believe that such nuisances could ever have existed. I trust, therefore, that some enterprising amateurs will secure negatives showing the position and nature of these "hindrances to navigation." F. G. S.

"THE Practice of Photography for the Use of Amateurs and Beginners" is a handbook published in French by the Librairie de la Science en Famille, under the editorship of M. Charles Mendel. It is nicely got up, illustrated profusely, and deals with all the points interesting to a beginner, from the selection of the apparatus to the mounting of the print.

"SUMMER HOLIDAYS," the summer and first number of "Cyclos," an illustrated review, contains a considerable number of pictures of various spots in England, Wales, and Ireland likely to be attractive to holiday-makers, together with some information about the various places, which will make it a useful companion to travellers as well as an interesting book for people in general.







## LIST OF CONTINENTAL AND FOREIGN DARK-ROOMS.

PLATES and photographic material may be obtained at the following towns on the Continent:—

<i>Austria.</i>	
Vienna (Oskar Cramer, The Graben)	Prague (Adolf Fische, Ferdinand Strasse, 23)
<i>Egypt.</i>	
Alexandria (Hess and Co.)	Cairo (Hess and Co.)
<i>France.</i>	
Cannes (Buisson, 12, Boulevard de la Croisette)	Paris (Maison Molteni, Rue Chateau d'Eau, 44)
Mentone (M. An. Fosse, Rue Partoneux)	San Raphael (M. Ferrari, photographer)
Nice (M. Ferrari, photographer)	
<i>Germany.</i>	
Berlin (R. Talbot, Kaiser Wilhelm Strasse, 46)	Dresden (Ernest Kersler, Briest Strasse, 3)
Dresden (C. F. Bernhardt, Palais Gutenberg)	Frankfort-on-Main (Haaks & Albess, Kirchner Strasse)
Dresden (E. Kaden, 12 and 14, Grunalen Strasse)	Hanover (S. Federlein, Louisenstrasse, 2)
	*Mainz
<i>Greece.</i>	
Athens (Arthur Hill, Lloyd's Agent)	
<i>Holland and Belgium.</i>	
Amsterdam	Blankenburgh
Antwerp (L. Van Neck, Rue Klapdorp, 10)	Dinant
Brussels (L. Van Neck, Rue Montague aux Herbes)	Liège
Potagères	Ostend
<i>Italy.</i>	
† Allesandria (Castellani, Corso Roma)	† Milan (Bathista Borghi, Via Angello, 17)
† Bergamo (A. Tarramelli, via Torequato Tasso, 22)	† Milan (Pietro Piellavinci, Via Orefici)
Bologna	Naples (Giulio Du Besse)
† Bologna (Sorgato and Belvedere, Via Farina, 24)	† Novaro (A. Zenoni, via Ospedal)
† Casale Monferrato (A. Bertolio, Via Garibaldi, 6)	Padua
Corso	Peruggia
Florence (Pietro Sbisà, Piazza Stella Signoria, 4)	Ravenna
Graz	Rome (J. Juliana, Via Babuino, 147)
† Genoa (A. Sotteri, Via Carlo Felice, 10)	Rome (Pietro Sbisà, Fia del Corso, 149)
† Genoa (A. Speiche, Solita S. Gerolamo, 3)	Rome (Oreste Duchi, Piazza Nicosia, 27)
Genoa (Badino, Portici Vittorio Emanueli)	San Remo (J. Scotto, Rue Victor Emmanuel, 16)
Genoa (Carlo Coppo, Via Guilia, 43)	Spezia
† Leghorn (U. Bettini, via Ricasoli, 18)	Turin (A. Berry, via Roma, 1)
	Venice
	† Venice (Gerolamo Mankovain, Optician)
<i>Japan.</i>	
d Yokohama	
<i>*Malta.</i>	
<i>Norway and Sweden.</i>	
Bergen (J. Peter, Torvet, 16)	Stavanger
Bergen (Messrs. Bennett, the Tourist Office, 18, Porvet)	Stockholm
Christiana (H. Abel, Carl Johans Gade, 45)	Trondhjem
<i>Portugal.</i>	
Lisbon (J. J. Ribeiro, Rue Aurea, 222)	
<i>Russia.</i>	
Astracan	Poltava
Charkoff	St. Petersburg (T. Jochim and Co., Petite Morskaisa, 4)
Kieff	Samara
Moscow	Saratoff
Odessa (B. Gotleba, Pochtobia Street)	Varsovie

\* Towns marked thus come under the AMATEUR PHOTOGRAPHER Register, as the gentlemen residing there are amateurs, to whom an introduction is necessary.

† All these dealers have Dark Rooms.

*Spain.*

Barcelona (F. Arenas, Plaza Regomi, 5) \*Cadiz

*Switzerland.*

Bex (Hotel Bains et Grande des Salines)  
Bex (Grand Hotel des Bains, director, M. O. Hiele)  
Chésières, s/Ollon, cant. de Vaud (Hotel du Chamossaire, director, M. H. Amiguet)  
Davos-Platz, cant. des Grisons (Hotel d'Angleterre, director, M. C. Demmer)  
Geneva (E. Baud, Rue Verdaine, 11)  
Geneva (Philippe J., Cour de Rive, 11)  
Hotel des Avants, nr. Montreux  
Interlaken, cant. de Berne (Hotel Beau-Rivage, director, M. J. Maurer)  
Lausanne (Lausanne Amateur Photographic Society)  
Montreux (Mons. E. Frausoli)  
Montreux (Englemann, Chemist Peritot)

Pontresina (Hotel Steimboln)  
Territet, cant. de Vaud (Hotel des Alpes et Grand Hotel, director, M. Ami Chessex)  
Thoune, cant. de Berne (Hotel Freienhof, director, M. G.-R. Engemann)  
Vevey, cant. de Vaud (Grand Hotel de Vevey, director, M. E. Michel)  
Vevey, cant. de Vaud (Grand Hotel du Lac, director, J. Tappert)  
Vevey, cant. de Vaud (Hotel Pension du Panorama, director, M. N. Blotnitzki)  
Villars s/Ollon, cant. de Vaud (Hotel du Grand Muveran, director, M. A. Petter Genillard)  
Witzig, cant. de Zurich (Hotel du Château de Laufen, director, M. C. Wolter)  
Zurich (R. Ganz)

*Turkey.*

Constantinople (Cavachache Brothers, 675, Grande Rue de Pera) Smyrna

*Turkey, Asiatic.*

Beyrout Syria

THE *Financial News* says:—"A Company called the Camera Club, Limited, has been registered. There are not to be more than twenty directors, and their remuneration is to be *nil*. Considering the numerical strength of the Board and the gratuitous character of its services, the meetings will probably have to be held 'in camera.' It may, however, be hoped that the undertaking will not have 'negative' results.

IS THERE A COPYRIGHT IN ONE'S FACE?—Few things have been of more interest to the beautiful women of America (says the *New York Sun*) than the decision of the Supreme Court of Minnesota concerning the ownership of photographs. It is the decision handed down after nearly a year's litigation, and it makes photographs the property of the original of whom they are taken. Several suits against tobacco and cigarette firms for exhibiting the pictures of well-known actresses, and in three instances of prominent society women, in more or less objectionable positions or attire, have all been decided against the tobacco firms. It is not unlikely, now that photographers will also be restrained from using the negatives of their customers, that there will be more opportunity for the much-photographed fraternity of beautiful women in this country to protect themselves. There have been some very painful instances of the abuse of their photographs by photographers. The case of Miss Rehan is very well known. A photograph of that distinguished actress has been long exhibited in shop windows, and was fully reproduced in lithographic form by the owners of a prominent cigar factory for advertising purposes. The picture from the waist up is undoubtedly that of Miss Rehan, but the objectionable arrangement of the skirts is taken from some other source. The photographer took one of Miss Rehan's pictures, cut it off at the waist, and attached it to the lower half of another photograph in his own possession. A number of copies were made, and the market was flooded with the pictures. There was a good deal of talk at a legal fight, but the case involved so many difficulties that litigation was finally abandoned. Another instance is that of a lady well known in London. A photographer took a picture of her in classical attire. When her husband saw the picture he condemned it, and a request was sent to the photographer the following morning to destroy the plate. Within three weeks over 6,000 of the photographs had been distributed in London, and it has been impossible to stop the sales. The lady, who is extremely near-sighted, left the arrangement of the Greek drapery entirely to the photographer. She did not see a copy of it until he sent it to her house some days later for approval. The protest, of course, came too late.—*Citizen*.



## Apparatus.

### THE "QUADRANT" CAMERA.

We have had an opportunity of inspecting the "Quadrant" hand-camera (Parfitt and Hume's patent). This camera is manufactured by Messrs. W. H. Humphries and Co., of 268, Upper Street, Islington, London, N. It is admirably made in mahogany, covered with morocco leather; every part of the moving parts is made to gauge, and thoroughly finished. The lens is of the Euryscope form, working at  $f/6$ , with an equivalent focus of  $5\frac{1}{2}$  inches. Focussing is accomplished by a lever underneath the box, and is under control from 6 feet to extreme distance. The shutter is of the Kershaw type, with double blind, so giving slightly less exposure to the sky than the fore-

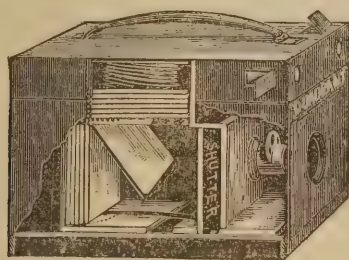


FIG. 1.

ground. There are two finders, one for vertical and the other horizontal.

In fig. 1 we give a general sectional view of the camera, which shows the chamber in which the plates are stored horizontally, holding twelve plates. These plates are in sheaths strengthened on the upper side by a steel pin which overhangs slightly at each end, and fits into a slot at each side which forms the upper edge of the chamber in which the plate is exposed. The action of a small lever of very simple construction releases the plate from the horizontal position, and swings it into the vertical and exact position for exposure. The same movement retires the chamber containing the exposed plates, and so on until the whole of the

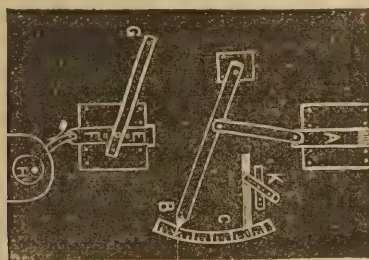


FIG. 2.

twelve plates have been used. A dial indicates the number of plates that have been used.

Fig. 2 shows a plan of the bottom of the camera. A is the arm by which the lens is moved; B is a pointer; C, the graduated

scale; D is over a plunger, which, by a slight movement of G, drives E and F, a plate attached to chamber holding plates for exposure and exposed backwards as each plate is released; H is a registering ratchet.

These cameras can be made to hold twenty-four plates; they are most compact. We have every confidence in recommending them to the attention of our readers. Every part of the camera is well finished, and all the working parts are under control and made with the greatest care.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRKENHEAD PHOT. ASSOC.**—The ordinary meeting was held on the 14th inst., the business announced being a paper by Mr. J. A. Forrest, on "A Photographic Exhibition in Scotland," illustrated by means of the lantern.

**CAMBRIDGE CAMERA CLUB.**—A very interesting meeting of the members of the Cambridge Camera Club was held on the 7th inst.; Mr. F. Morley in the chair. The object of the gathering was to exhibit the photographs taken at Duxford on July 3rd, and to present the cup to the successful competitor. There were six competitors, and the result of the competition was as follows:—1 (cup), Mr. C. S. Roe, Market Hill; 2, Mr. G. H. Potts, Carlyle Road; 3, Mr. Greenwood, Petty Cury; 4, Mr. S. H. Pryor, 25 Sidney Street; 5, Mr. F. H. Sanderson, Bridge Street; 6, Mr. F. Morley, Hobson Street. The judge was Mr. Charles W. Hastings, Editor of the AMATEUR PHOTOGRAPHER. The cup was presented to Mr. Roe by the Chairman. It bore the following inscription:—"Cambridge Camera Club. The president's cup, won by Mr. C. S. Roe, 1890." The various pictures were then examined, and most of them were very admirable specimens of amateur work. Mr. Roe's winning pictures were four in number, and were entitled "Stitch in Time," "Flirtation," "The Mill Pool," and "The Village Barber." The judge characterised "The Mill Pool" as "the best of the whole batch of prints," and from an artistic point of view this judgment cannot be impeached. Nevertheless, the other two pictures appeal more directly to the popular taste. "Flirtation" depicts a sturdy countryman carrying a full sack up a ladder. Mid-way up he has paused an instant to return the coy but mischievous glance of a buxom country lass, who is standing in a negligent attitude near the foot of the ladder. Hard by stands the cart which the man is unloading. The figures and the surroundings form a charming picture. "The Village Barber" is a serio-comic bit of work which appeals at once to the risible faculties of those who gaze upon it. Outside a cottage are three weather-beaten countrymen. One is seated on a chair, with solemn visage and a basin on his head. Behind him stands the barber, scissors in hand, engaged in trimming his poll. The third figure in the group is a critic, who, leaning his back against the cottage wall, views the transaction with dubious approval. Nothing could be happier in its way than this. The whole of the pictures were taken at Duxford, and form a most interesting local collection. A vote of thanks was passed to Mr. Hastings for kindly acting as judge, and to Mr. and Mrs. Morley for their

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Cornwall Polytechnic Soc: ... ..	Falmouth.	Aug. 26.	—	{ E. Kitto, Observatory, Falmouth. W. Brooks, Laurel Villa, Reigate.
Phot. Soc: of Great Britain	London.	Sept. 29.	Nov. 12.	{ E. Cocking, 5A, Pall Mall East, S.W. C. G. Virgo, Art Gallery, Manchester.
Edinburgh Phot. Soc: ... ..	Manchester.	Sept. —.	Jan. (1891).	{ Thomas Barclay, 180, Dalkeith Road, Edinburgh. Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Phot. Soc: of India ... ..	Edinburgh.	Nov. 14.	Jan. 7 (1891).	
Liverpool Am: Phot: Assoc: ... ..	Calcutta.	*Dec. —.	—	
	Liverpool.	Mar. 6 (91).	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.

\* English and European exhibits should be despatched not later than Oct. 1st.



kindness in connection with the competition prize and the meeting at Duxford.

**DARLINGTON PHOT. SOC.:**—The usual monthly meeting was held on the 11th inst., Mr. R. A. Luck presided. Mr. F. C. G. Stock's paper on "Carbon Printing" was read and much appreciated, after which a general discussion took place. Several members showed specimens of their work.

**HOLBORN CAMERA CLUB.**—About twenty-five members attended the Southern Counties Cyclists' Camp at Busbridge Park, Godalming, on Friday, 8th instant. On Saturday night a most successful lantern show was given in the open by the club, who took down lantern, screen, cylinders, and slides of previous camps and other subjects. Members were busy each day with the camera, taking the tents of the various cycling clubs, which in some cases were very prettily decorated, and there was unlimited scope for picture making in the park and surrounding country.

**LONDON AND PROVINCIAL PHOT. ASSOC.:**—At the meeting on the 21st inst. a discussion will be opened on "Cloud Negatives," by Mr. J. S. Teape. On the 28th inst. Mr. P. Everett will open a discussion on "Pictorial Definition."

**MANCHESTER AM. PHOT. SOC.:**—At the ordinary meeting on the 12th inst., Dr. C. O. Weber, Ph.D., etc., read a paper on the so-called "Non-actinic Solution." Mr. Wheeler gave a demon-

stration of his method of producing clouds in bromide prints. There were also exhibited specimens of "Kallitype;" a walking-stick tripod for hand-camera; and specimens of silver printing by Scholzig's green-glass method.

**MORLEY AND DISTRICT AM. PHOT. SOC.:**—A Society under this title has been formed by the amateurs of the neighbourhood. The following officers have been appointed: President, Mr. S. Atkinson; Vice-President, Mr. Illingworth; Treasurer, Mr. S. Tomlinson; Secretary, Mr. L. Lawson, 3, Bank Top, Morley. The meetings are held on alternate Tuesday evenings, and at the next meeting, on the 19th inst., there will be an exhibition of members' work.

**TUNBRIDGE WELLS AM. PHOT. ASSOC.:**—The ordinary meeting of the above association was held at the Mechanics' Institute on the 7th inst., Mr. A. W. Pierson in the chair. Mr. Daniel Howard was duly elected a member. Mr. Lewis described the process of printing with green glass, and showed an untuned print which was a good colour, but had taken three hours to print in the direct sunlight, which was considered by some of those present to be objectionable. Mr. Morgan brought for inspection a tripod he had made; it folds up as a walking-stick, and is for use with the hand-camera; it is very light, but exceedingly firm when open, and was much admired.

## To Correspondents.

The insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4071. **Switzerland.**—I am thinking of going to Switzerland with my half-plate camera this summer. Will some readers please advise me as to (1) whether I had better take plates with me or get them at Lucerne? (2) Whether I shall have any trouble with the customs authorities *en route* (I do not know much French). (3) As to the best way to pack my apparatus. I propose to develop on my return home. Any information as to exposures suitable for Swiss scenery, or any other hints, will be thankfully received.—**REGINALD C. GOULD.**

4072. **Aristotype Paper, Liesegang's.**—Will any one inform me how I can best tone, fix, wash, and dry the above. I have tried acetate of soda 1 dr., chloride of gold, 2 drms.; water, 16 ozs. Also borax powdered, 1 oz.; water, hot, 20 ozs. In each case Aristotype prints have taken about four hours to tone at all, and on being placed in fixing bath (3 ozs. hypo, 20 ozs. water, 20 drops ammonia) fade a reddish yellow. I find great difficulty in washing and drying, so as to preserve brilliancy of surface of paper. Any hints will greatly oblige.—**MACE.**

4073. **Scarborough.**—Will some kind reader state the capabilities of Scarborough and district, from a photographic point of view, for a holiday of ten days.—**FIVE BY FOUR.**

4074. **Optical Contact.**—Will any reader please state how to obtain perfect optical contact, both for bromide prints simply squeezed down, and for prints gelatinized. The surfaces of my prints after stripping are somewhat abraded in places.—**FIVE BY FOUR.**

4075. **Enlarging or Reducing.**—A negative  $4\frac{1}{2}$  by  $3\frac{1}{2}$  is to be enlarged to 12 by 10. By Wall's book, p. 63, this works out 12 by 10 by  $\frac{1}{3}$  = or 9 times. By **AMATEUR PHOTOGRAPHER**, vol. vi, p. 84, the  $4\frac{1}{2}$  by  $3\frac{1}{2}$  is to be  $3\frac{1}{2}$  and the 12 by 10 to be 10; this gives 10 by  $\frac{1}{3}$  =  $\frac{10}{3}$  = 3 times. Which is correct, 3 times or 9 times? If, as I think, the 8 or 9

times is nearest correct, how are Wall's tables to be applied? And can they be used for above 8 times by saying (if 12 times is required)  $8 + 4 = 12$ , and then adding the measurements?—**H.**

4076. **Focus of Lens.**—Can any of your readers tell me the solar back focus of a 3-inch glass hemisphere, from surface of lens on the plane side, and also from ditto on convex side?—**F. DAVIS.**

4077. **Exposure.**—In taking a group of cricketers in white, with Wray's single lens, the fourth stop, and 11fod ordinary plates, what exposure should be given between three and six o'clock on a bright day without sun?—**THANKFUL.**

4078. **Whole-Plate Lens.**—Will someone kindly recommend me the best lens I can get for about £4, or £4 10s., for my whole-plate camera? Also advise me whether to invest in a second-hand one by a well-known maker, or purchase a new one direct from some less expensive but reliable firm.—**MAIDSTONE.**

4079. **Enamelling Aristo Prints.**—I am very much troubled with prints sticking to the plate-glass after squeezing and drying. About one-third of them do so to such an extent that they tear when stripping. I should be very much obliged to any reader who can inform me of the cause and a reliable remedy. I think it appropriate that I should state my mode of procedure, which is as follows: Wash well; alum 10 percent, 3 minutes; wash; tone sulphocyanide bath; fix (no previous wash); wash thoroughly; again alum 10 percent; wash well; let dry spontaneously. I now prepare the plate-glass by a good soap wash; dry; apply bees'-wax in turpentine; rub off as thoroughly as possible, and polish with French chalk. Meanwhile I re-wet the prints for five minutes or so, splash some clean water on the glass plate, and squeeze. I allow them to dry thoroughly before attempting to strip.—**LAWRET.**

4080. **Italy.**—Hints wanted for photographic tour in. Most effective subjects near Rome and Naples. Best mode of packing plates, best form of changing bag, and best bag or sling for whole-plate camera?—**KAPPA.**

4081. **Rivot's Paper.**—Will some one kindly tell me if Rivot's sensitised paper can be relied on, and what experience they have had with it?—**H. I. O.**

4082. **Intensifying.**—What is the cause of a negative refusing to bleach? Have successfully used same solution on others, viz., 1 oz. bichloride mercury to a pint water.—**J. K.**

4083. **Windermere.**—Can any reader inform me if there is a dark-room in any hotel at Windermere, where amateurs can change plates?—**R. V. REID.**

4084. **Daguerreotype.**—I wish to have a daguerreotype renewed, and a negative taken from it. Can you recommend any one who would do this carefully, and could be trusted not to damage it? I need not say that it is of great value to me personally.—**M. D.**

## QUERIES UNANSWERED.

July 4th.—Nos. 3953, 3967, 3968, 3969, 3972.

11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3991, 3992, 3994, 3995, 3997.

18th.—Nos. 4003, 4004, 4005, 4007, 4008, 4009, 4013, 4016, 4017, 4020, 4021, 4024, 4025, 4026, 4027, 4029.

25th.—Nos. 4031, 4036, 4037, 4042, 4045, 4046.

Aug. 1st.—Nos. 4048, 4052, 4054, 4055.

8th.—Nos. 4057, 4061, 4063, 4065, 4066, 4068, 4070.

## ANSWERS.

4050. **Plates in Austria.**—I fear "C. H. P." will not succeed in obtaining 11fod or any other English make of plates in Austria. Here, in Vienna, at least, they are never kept in stock, and only obtained to order at excessive prices. I wish some good English maker of plates would look up an Austrian business. French and German plates are to be had at same prices as Austrian ones, but English plates cost just double. I do not understand this, as the duty on all is alike. Half-plates ( $6\frac{1}{2}$  ins. by  $4\frac{1}{2}$  ins., or 12 by 16.5 centimetres) can be obtained of almost any German or Austrian make, but whole plates or larger can scarcely be found in English sizes. Editor has my address, and shall be pleased if I can be of service to "C. H. P." when he is in Vienna.—**M.**

4053. **Green Glass.**—Ask for a piece of conservatory or greenhouse glass at any glazier's. They will cut it the right size for you. I have not been able to get it wider than  $6\frac{1}{2}$  ins. myself, but as you want quarter-plate size this would not affect you. The price I paid for cabinet size was one penny. I don't see how it could interfere with vignetting, but try for yourself.—**REGINALD C. GOULD.**

4059. **Photographing Machinery.**—The plates you use will do very well. If the day is fine, shop in which the machinery is lighted by side windows only, exposures will be 15 to 20 minutes; by top windows only, 30 to 45 minutes; and if by top and side windows 10 to 12 minutes. It is best to avoid a perpendicular light on machinery, but take it so that the light falls at an angle on it, and try and avoid taking windows if possible. Develop with a developer, weak in pyro (one grain to ounce), otherwise you will have a soot and chalk picture.—**EXPERIENTIA.**

4060. **Fog.**—Your lens does not cover the plate. Remedy: Get one that does.—**EXPERIENTIA.**

4063. **Stains while Developing.**—If your developer is fresh and clear, and your fixing bath also, it is either that the plates are stale, or damp has got to them. To make sure of this, when you next take any plates out, take one and hold it at right angles to your hand, face up, and look along its edges towards the ruby light, and if you see a rabbit as it were of a waxy appearance, then the plates are stale or damp; if not, look to your developer and fixing bath. This metallic stain is removed by rubbing gently with a plug of cotton dipped in methylated spirits.—**EXPERIENTIA.**

4064. **Developer.**—Refer to back number of **AMATEUR PHOTOGRAPHER**, for the 26th July, 1889, and you will find what you want.—**EXPERIENTIA.**

4067. **Exposure.**—At this time of year and during clear weather you could hardly give too short an exposure for the subjects and with the plates you mention.—**REGINALD C. GOULD.**

4069. **Westminster Abbey.**—Apply to the Dean of Westminster or the Vestry Clerk. You will do best to use f/40 stop; twenty-five minutes is a fair average for exposure, but, of course, this varies according to subject. Many very useful and interesting (from an architect's point of view) pictures may be taken at the E. end, in and around the Confessor's Chapel—vide Abbot Islip's Chapel, Royal tombs, entrance to Henry VII.'s Chapel, etc., ad lib. The best time for photography in the Abbey is between 12 and 2.30 p.m. Avoid Mondays and Tuesdays, as the whole church is thrown open to the public. I am usually there from about 1.30 p.m. until 2 o'clock, and shall be most happy to give you the benefit of my experience.—**F. J. L.**



# EDITORIAL

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret. —ED:AM:PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

T. G. KING.—We have placed you on the register, and will send as soon as possible. We are much wanting unmounted photographs, and albums to mount them in.

J. F. KELLY.—Thank you very much for the addresses. Forms have been sent on.

C. A. T.—See last week; over-exposed tremendously. Buy "Wheeler's Exposure Tables," and study them carefully, and when you understand them you will have no more need to find fault with plates and developers.

J. T. TROTT.—Thank you for the letter; correction duly made.

O. G. PLATT.—Your correction noted.

W. A. SOUTHWELL.—Have marked dark-room amateur.

F. PASSADRO.—We are much indebted for your long list of dealers, etc., in Italy, and have added them to our list of "Dark-Rooms, etc., on the Continent."

W. MUDIE.—Try it.

JOHN STABB.—Your letter is sent on to Mr. Hethon Lewis.

B. DILLON.—The sea voyage and knocking about in travelling will probably be the reason of the plates going queer.

B. BULLEN.—Thank you very much. The prints shall be sent; probably in next week's AMATEUR PHOTOGRAPHER.

A. H. CLINCH.—Have booked your society for Monday, October 20th.

A. K.—We cannot tell you what would be the extreme focus of camera P; but it is certain that from that firm you would only get the very best work. S and B are useful cameras, but they will certainly not stand the wear and tear that the P make will.

KATHLEEN.—The print sent us is very fair. Interiors are always difficult, because of the lighting. You have lit your subject fairly well; the exposure might have been prolonged. In future use a small stop, and give a long exposure. You might enter our next "Ladies' Competition," which will be announced shortly. We return the print.

G. T. DENVER.—It is a "tintype," or, more properly, a ferrotype, and we are not able to give you much information upon the subject. The one you send was made in a multiplying camera, with four or more lenses, and two or more consecutive exposures. They are made very quickly, and sold very cheaply. In America a great deal of work of this class is done; but in England it is only practised by itinerant photographers and in the poorer districts of London. If you wish to know more of the subject we should advise you to communicate with Messrs. Anthony and Co., of New York, who publish a book, "The Ferrotype, and How to Make It."

JOHN.—You should keep by you a solution of nitrate of silver, say 100 to 120 grs. to the ounce, and after sensitising each sheet of paper, add 2 drms. You will find this keep your bath up to a normal strength.

HINTON BATEMAN.—Any of the firms you name are capable of doing the work you require. Advertisements in "Sale and Exchange" column may appear under a number, and be bought upon the deposit system.

JOHN STABB.—Why not send your own query?

ADELPHI.—If you turn over your back numbers of the AMATEUR PHOTOGRAPHER you will find several excellent formulas for hydroquinone developers. Always mix your own developers.

E. M. H.—There is no reason why you should not change your plates in an ordinary room, either in the dark or with the use of a ruby lamp.

L. BTHELL.—Your letter of complaint to hand. We will communicate with the dealer.

E. W. G. M.—No. 1. With a clear blue sky it is extremely difficult to secure fleecy white clouds. As you secured a good negative of the house, the exposure would be much too long for the clouds. No. 2. Ordinary exposure, according to time of day, stop used, and rapidity of plate.

INSTANTO.—We do not know the highest speed the shutter works at, but the plates are very quick, and in every way fitted for instantaneous work.

MADE.—Read the article in AMATEUR PHOTOGRAPHER, Vol. xi., page 395. Your query is inserted.

M. R.—We place the lenses in the following order: 1, 2, 4, 8. You do not say the size of plate you require this lens to cover, so that it is quite

impossible for us to give you the dimensions of aperture.

H. T. C.—The paper was possibly stained, and is undertoned. In lighting the subjects, you have had your light too high. The second negative is much the better, and should yield a very good print. They are returned to you.

I. M. B.—We should advise the 200 parts, as with the slower development you would secure better half tones. We do not know the lens, but if sent to us could perhaps help you. In practice we find one bath, made up slightly stronger, is sufficient.

JOSEPH CHAMBERLAIN.—We will always do our best to deserve the praise and commendation of our subscribers.

CASTLE.—Too large an aperture; the light would be diffused, and so account for the slight fog and absence of image.

D. E. F.—Particulars will be announced shortly of a second "Ladies' Competition."

DOOTSEA.—Send us particulars of stop used, time of day, and exposure. Print deeper; if you have been using acetate, try borax.

LABOR, ETC.—"Photography for all" (Harrison).

CHAS. DAVIS.—Will you please describe the negatives and prints; we fear they must have been mislaid, we cannot put our hand upon them.

M. D.—We have inserted as a query. Our publishers will send on the copies as requested.

O. W. TOWNSEND.—(1) No particular technical faults. We should take it that your negative is slightly stained. (2) Very fair for a beginner. (3) Hardly at present. Photographs look much better on larger mounts, sunk mounts are the best, as they set off the print. Should be pleased to have an opportunity of seeing other work.

N. ASHBURNER.—The acid sulphite of soda mentioned is a solution of the acid, which would probably be a saturated solution.

W. C. L. K.—No. 1, considerably over-exposed, and the halo is probably due to halation. Nos. 3 and 4: Deposit is alum and hypo on the film. No. 2: We cannot give any explanation of the line on the roofs. No. 5: Probably faulty mixing of emulsion.

F. JOURDAIN.—Your experience is unique. We have seen nothing of the kind before.

CHESHIRE.—Should certainly advise the No. 4.

J. H. THORNTON.—The "improved" paper is not a success, judging from your print. Have you carefully followed the instructions? Your negative is a thin one, and the foreground sadly lacks definition.

O. WORSLEY.—Your photographs are very fair, but not interesting; the best is No. 1.

H. O. LEWIS AND CO.—Change of address duly noted.

THETA.—We were shown the camera by the inventor; it is a very excellent apparatus, and the maker is, we understand, a thoroughly reliable man. You may safely deal with him.

JOHN PRICE.—The lens sold with the camera is well spoken of, but of those named we think 4, 5, 2, or 1. You cannot get a better lens than 4; it is expensive; 5 is also an admirable lens.

PICKWICK.—For the money they are all three useful and reliable instruments; we really have no preference.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such adver-

tisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**"Amateur Photographer."**—AMATEUR PHOTOGRAPHER, vols. 6 to 11 inclusive, clean and perfect (contains Wall's "Dictionary"); price 10s. 6d.—Crook, 40, Market Place, Salisbury.

**Cameras, etc.**—Park's Victoria camera, full plate, three double backs, Wray's R.R. lens, solid leather case and lock, in first-class condition; £9, or would exchange for good magic lantern and cash.—Apply Sayer, Irlam, Manchester.

Underwood's 1888 quarter-plate Instantograph camera, and one slide, good as new; cost 28s., bargain, 20s.—2, Hawthorn Villas, Slad Road, Stroud.

Quarter-plate Sands and Hunter "Exhibition" camera, R.R. and W.A.R. lens, and shutter.—W. Charles, Duns, N.B.

Whole-plate camera, extra long focus, double swing back, with rack adjustment, rising and falling front, extra strong brass binding, three double dark slides, all strongly brass bound, never been used; cost £10 10s.; genuine bargain, £3 6s.—5, Park Road, Crouch End, N.

Whole-plate field camera, rack-work adjustment, extends 18 ins., closes to 3 ins., double swing back, reversing frame, rising front, one double slide, very portable, quite new; £4, approval.—Further particulars, D. Padgham, Northiam, Sussex.

Lancaster's 1886 half-plate Instantograph, leather bellows, one dark slide, and finder; price 35s.—G. Smith, 26, Manor Park Road, East Finchley, Middlesex.

Underwood's Tourograph, half-plate, one slide, all complete, also three Tylar's metal slides and adapter; 45s.—H. E. Lord, Town Street, Batley Carr.

Quarter-plate Lancaster's 1889 Instantograph camera, lens, shutter, and three double dark slides, latest improvements, all as new; cost 52s., take 40s. cash, deposit, approval.—Geo. Bily, The Stores, Uttoxeter.

**Dark-Slides, etc.**—Ten quarter (solid form) dark slides, nearly finished; 20s. Phantom shutter, hood 2½, pneumatic action; cost 27s., take 20s.; good as new. Dark-room developing ruby lamp, two yellow blinds, light regulator, lamp, 9s. 6d.—Nemo, Bath Lodge, Reading.

**Films.**—Fry's films, two packets (one dozen each), 60-times, unopened, bought in June, left over from tour in Norway; 3s. each.—Miss Griffith, Littlethorpe, Ripon.

**Hand-Cameras.**—Kodak No. 4 regular, nearly new; £3 10s., cost £10 7s. 6d., reason for selling, got two.—No. 72, AMATEUR PHOTOGRAPHER, Creed Lane, E.C.

Ideal hand-camera, nearly new; price 90s.—W., 164, Stroud Green Road, London.

Quarter detective, by Turnbull, as described in 1890 "Year Book," six backs, made to take two lenses, 5 to 7 in. focus, quite new and in perfect condition; £4, or with Taylor's 5 in. Iris detective lens, £7.—Cooper, Chestergate, Stockport.

**Hand-Cameras, etc.**—What offers? Cedar wood half-plate hand-camera, covered with black leather, with adjustments to quarter-plate and stereoscopic views, fitted with Ross's rapid symmetrical lens, and dark chamber to hold twelve plates, changed by a lever, time and instantaneous shutter, view finder, walking-stick stand, exposure tables, two dozen Ilford half-plates. On view at Sutton's, 209, Westminster Bridge Road, London.

Fallowfield's Facile hand-camera, quite new, rectilinear lens and finder; cost £5 5s., accept £4 4s.; reason for selling, have two.—Ponting, National Provincial Bank, Liverpool.

**Lenses.**—5 by 4 Optimus rapid rectilinear, perfect condition; offers above £1.—S. Graves, 11, Lansdowne Place, Blackheath.

Thoroughly good half-plate rectilinear lens, 16s.; and quarter portrait, 5s.—Day, 35, Berger Road, Homerton.

**Lenses, etc.**—Portrait lens, quarter-plate, 15s.; scales and weights, Tylar's plate-washer, and dark-room lamp, 10s.; three dishes, printing frame, and two boxes for negatives, 3s.; all good value.—Drinkwater, 44, Malvern Hill Road, Birmingham.

Wray's 10 by 8 view lens, Waterhouse diaphragms, 40s.; Mayfield's 8 by 5 R.R., Waterhouse diaphragms, 35s.; one 10 by 8 and four 8 by 8 Meagher's patent printing frames, 7s. 6d.; pocket microscope, 20s.; bargain, £4 the lot, or offers.—B. Rwen, Chiswick Nursery, W.

**Retouching Desk.**—Whole-plate retouching desk, perfect condition, no approval; 7s. 6d.—Tooth, Stephen Street, Rugby.

**Sets.**—Camera, half-plate, 6s.; stand, 2s. 6d.; lens, 20s.—169, Coventry Road, Birmingham.

Good quarter-plate outfit, R.R. lens; cost over £9, will take £5; list sent.—Smithers, Cauldwell Road, Ipswich.

Whole-plate Simplissimus camera, three double book backs, almost new, 85s.; rectilinear lens, 35s.; three-fold stand, 17s. 6d.; canvass case, 12s. 6d.—T. Hall, Pinfold Lane, Lancaster.

8½ by 6½ Universal bellows camera, fitted Lancaster's cabinet lens, Querry's pneumatic shutter, studio stand, equal to new; £5 10s. the lot.—2, Peter's Street, Dereham Road, Norwich.



Quarter Instantograph, three slides, lens, shutter, stand, focussing glass, cloth case, new; 50s.—Hain, High Road, Willeeden Green.

Light "Exhibition" half-plate camera, with turntable, etc., quite new, three-fold stand, two mahogany slides, Beck's 8 by 5 rectilinear, Thornton Pickard time and instantaneous shutter, stiff waterproof case.—G., 18, Sandringham Road, Dalston.

Camera, half-plate, mahogany-bodied camera, with tilting and turning tables, and lens, in massive brass mounts, with rackwork, also large tripod stand; price 40s.; tripod alone cost 50s.—W. Hanlon, Holmes, Rotherham.

Lancaster's half-plate Instantograph camera, three double backs, tripod, case, perfect condition; price £4.—Dudin, 4, Fenchurch Street.

**Sets, etc.**—Whole-plate Lancaster's International camera, extension bellows, every movement, rapid rectilinear lens, Iris diaphragm, tripod, double dark slide, simplicity shutter, also hand shutter for whole-plate instantaneous lens, half-plate burnisher, enlarging easel, box of scales and weights, three whole-plate printing frames, cutting shapes, vignetting glasses, developing trays, four 12 by 10 porcelain developing dishes, etc., all as good as new; price £12 10s.—Fielding, West View, Great Horwood.

**Shutter, etc.**—Nearly new Kershaw shutter, will fit lens up to 2 ins., hood, with leather collar for smaller size, also three vols. AMATEUR PHOTOGRAPHER; what offers in cash or negatives (views in Sussex preferred).—T. C. Hosking, 35, Paulet Road, Camberwell.

**Stereo Camera, etc.**—Pocket stereo camera, with two rising fronts, three double and one single dark slide, pair Grubb's IC applanatic lenses, pair Lerebours doublet portrait lenses, with rack and pinion focussing, also No. 2 Demon camera, never used; the whole for 2 guineas, or offers for part.—Atkinson, Churwell, Leeds.

**Tent.**—Fallowfield's ventilated portable portmanteau tent, for changing and developing, cost 21s., nearly new, quite clean, only used a few times for changing; 18s.—A. J. Dawson, 25, Splott Road, Cardiff.

**Tent, etc.**—Large umbrella tent, 10s.; also carte rolling press, 8s. 6d., list price 25s.; also two new oak printing frames, 10s. 8d., with indicators, and three porcelain dishes, 10 by 8, shallow, with spout at corner. Wanted, whole-plate camera, by good maker. — J. Greenhill, 41, Bourne Street, Eastbourne.

**Tricycle.**—What offers for Juno tricycle? Cost £7 10s. last April, in splendid condition, complete, with lamp, bell, tool bag, spanner, and oil can; can be seen by appointment.—T. O. Hosking, 35, Paulet Road, Camberwell.

**Tripod.**—Polished ash half-plate tripod, two-fold, rigid; 6s. 6d., or exchange for, or buy, three-fold sliding leg.—Geo. Gosling, Ashbourne Lodge, Lausanne Road, Hornsey, N.

### WANTED.

**Cameras, etc.**—Half-plate camera and lens, double dark slides, complete, for studio work; must be good; moderate.—Love, Lanark.

Half-plate camera and stand; cheap; approval.—C. Michelmores, Broadstone, Dartmouth.

Half-plate camera, long extension (at least 18 ins.), with or without lens; also good half-plate stand.—C., 22, Longley Road, S.W.

Whole-plate, 10 by 8 or 12 by 10, camera, with one or more backs, also lens for same; must be in working condition; state full particulars and price.—Shepherd, Ripley, Derby.

**Hand-Cameras.**—Kodak No. 2 or 3, immediately, good condition.—W. Mudie, 62, Park Road, New Wandsworth.

Show's quarter-plate Eclipse hand-camera.—R.S., 202, Eglington Road, Woolwich.

**Lenses.**—Ross's 6½ by 4½ rapid symmetrical; perfect condition.—Vicar, St. Philip's, Southport.

Wanted, cabinet portrait lens; also 7 by 5 rapid rectilinear (Optimus Euryscope preferred).—Particulars to Hall, 5, Glastone Terrace, South Shields.

**Sets.**—Half-plate camera, set preferred; cheap for cash.—Chas. Stone, Woodridings, Pinner.

Half-plate camera, all movements, long focus, double backs, rapid rectilinear lens, 7 by 5, good makers essential, Ashford's tripod.—Rev. E. Parry, Selsdon Park, Croydon.

Lancaster's half-plate Instantograph or International, with accessories; state year of make and price for cash.—Higgs, Optician, Kingston-on-Thames.

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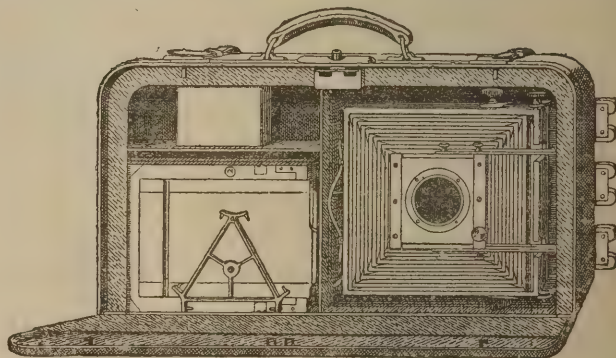
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### THE CAMERA BAG, R<sup>P</sup>

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# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645  
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Edited by CHARLES W. HASTINGS

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FRIDAY, AUGUST 22, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—*Shakespeare.*

THE following awards have been made in connection with several "Competitive Papers" that have been sent us in answer to the announcements that have been made from time to time in our columns:—

Enlargements No. II.	1st Prize	PERCY MORRIS.
"	2nd "	C. J. LEAPER, F.C.S.
Apparatus .. ..	1st "	THOS. L. BUCK.
" .. ..	2nd "	Rev. R. C. MACLEOD.
Optics .. ..	1st "	A. R. F. EVERSHED.
" .. ..	2nd "	PERCY L. BONTOR.
" .. ..	3rd "	T. KIDD.
Exposure .. ..	1st "	Rev. R. MILES BARNES.

These papers will be published in due course in the columns of the AMATEUR PHOTOGRAPHER. Many of them are profusely illustrated, and will prove entertaining and instructive to both amateurs and professional photographers.

\*\*\*\*\*

THIS week's mail brings us a letter from a correspondent at Capetown, advising us that efforts are being made to establish a photographic society in that town. There are a fair number of workers, and Mr. A. B. Lewis will be pleased to hear from any one in Capetown, or who may be going out, who will help him to form the Society. He also asks us to collect for him a few photographs for the lepers on Robben Island. The prints should have the titles on them, but must *not* be mounted.

\*\*\*\*\*

WE are much in want of unmounted prints for "Hospital Albums." The good work that has been done in distributing these albums has been considerable. We have at the present time a great many applications, but want photographs and albums, or subscriptions to buy albums. The title should in all cases be either written on the back, or attached to the print. As the evenings draw in we hope many will look over their spare prints, and send them to us.

\*\*\*\*\*

WE have been asked to call attention to the fact that the East Dulwich and Peckham Photographic Society will in future be known as the "South London Photographic Society." Most of us remember the society of that name which was dissolved some few years since, and whose last President was, we think, the Secretary of the Society of

Arts, Sir H. Trueman Wood. The East Dulwich Society has become one of considerable proportions, having now some eighty or more members. The subscription is fixed low so as to be within the reach of all. The Committee have taken new premises at Hanover Hall, Hanover Park, Rye Lane, Peckham, S.E. The hall is easily accessible by either tramcar or railway. The programme for the first half of the winter season has been arranged, and includes papers on "Mounting and Finishing," "Exhibition of Flash-light Apparatus," "Lantern Demonstrations," "Demonstration with Alpha Paper;" an annual exhibition, at which five medals will be given by the Society; "Experiments with Optical Lantern," etc., etc. The President, Mr. F. W. Edwards, is an accomplished worker in photography; the Secretary, Mr. S. W. Gardner (7, Barry Road, East Dulwich, S.E.), will be pleased to give all particulars and hear from any intending members.

\*\*\*\*\*

WE have pleasure in announcing the following awards in connection with the AMATEUR PHOTOGRAPHER Monthly Competition, No. 15, "Genre or Figure Study:—

*Silver Medal* .. .. EDWARD HAWKINS,

for "The Auld Man," an admirable study of an old man sitting in a village ale-house; taken upon an Eastman film, with a Ross R. S. working at  $f/16$ , with an exposure of twenty seconds, printed in platinotype. The model is most naturally posed, and the face is well lighted.

*Bronze Medal* .. .. WILLIAM H. HUNT,

for "Humpty Dumpty Sat on a Wall." In this picture we have a boy on the top of a garden wall, with a basket of eggs. The model is powerfully lighted, and the expression caught with much care. The composition is quite a new departure. The picture was taken with a Lancaster R. R. lens, working at  $f/10$ , taken in the shade on a bright day with an exposure of  $\frac{3}{8}$  of a second on a "Barnet" ordinary plate, developed with pyro-soda, and printed in platinotype (hot bath).

In this month's competition nearly all the pictures have some special points of interest, and tend to show that "Figure Studies" are popular amongst amateur photographers who really have a love for their art. In hardly any case do we find faults in technique; many of the subjects are arranged with great care.



A novel subject is "Fay," by Mr. C. B. McLaren, a sweetly pretty child on a rug, with background of palms, the figure being only draped. The child has helped the picture much by the pose, which is natural and graceful.

"Home Lessons," by Mr. H. A. Halliwell, is of another class. Three boys are sitting at a table learning their lessons, and all appear intent upon the subjects in hand. One young rascal is obtaining inspiration by biting and pulling at his pocket-handkerchief. The picture is well composed and not overdone with accessories.

"Do Play:" this photograph, by Mr. A. E. Edwards, shows us a child sitting in a garden chair reading, with a ball dropped at her side, whilst a fox terrier stands in front with his mouth open asking for the ball to be thrown. The child's face, though partly hidden by her hat, is beautifully lighted. The photograph is taken on an Edwards Isochromatic plate, and printed on "Obernetter" paper squeezed on to ground-glass.

"His Sunday Boots," by Mr. E. B. Wain, is well worth special commendation. There are three figures—the boy cleaning the boots, a man talking to him, and a child with the family cat. The picture is well-lighted, and the figures are quite natural and at rest.

"Cupid Fishing, by Mr. Alex. M. Morrison. In this photograph we have a very ambitious attempt at a figure study. A sweet child, unadorned, except for a pair of artificial wings, is seated on a moss-grown rock, fishing in a pool. The picture is ambitious, but the child's limbs are too huddled up to her body; still there is much to praise in the composition. The tone of the print (gelatino-chloride), a dirty brown, does not improve the subject.

\* \* \* \*

THE first prize, "The Auld Man," will be given as a frontispiece to the *Photographic Reporter* for October, and the pictures mentioned above will be reproduced as illustrations in the review of the photographs contributed to the Competition in the September issue of the same journal.

\* \* \* \*

WE have pleasure in drawing attention to a letter received from Mr. John G. Livesay, in which he advises us that it is intended to hold an exhibition of photographs and photographic apparatus at Ventnor. Prizes will be given, including the AMATEUR PHOTOGRAPHER Silver and Bronze medals. The exhibition will be opened by Sir M. Monier-Williams; and Colonel Malden, who has so often come to the front to help amateurs in the columns of this paper, is giving the movement his very active support. There are in the island many enthusiastic workers in photography, and we predict for the exhibition a great success. Further particulars will be published as they come to hand.

\* \* \* \*

#### TOURING.

THE increased portability of photographic apparatus has, since the invention of dry plates, been the principal factor in encouraging tourists to adopt photography as a means of procuring pictorial records of their wanderings. The tourist is to be found everywhere, consequently he is often, rightly or wrongly, a much abused person; and the British tourist, especially owing to the obstinacy with which he clings to his native eccentricities, calls down upon his head the greatest abuse of all. But, from our own experience, we should not count photography in itself amongst the eccentricities that provoke either the wrath or the contempt of the foreigner, and although in most countries of the world the photographer will find that his apparatus excites interest and sometimes consuming curiosity, yet nowhere, except in China and perhaps in some of the less frequented

parts of Spain, will he remark that it stirs up any active hostility in the minds of the natives.

Moreover, not only the tourist but also the traveller benefits from the increased and increasing portability and convenience of the modern photographic outfit. By a traveller as distinct from a tourist we mean one who travels with some definite aim besides that of mere amusement. The traveller may be an archaeologist, a paleologist, a naturalist, a geographer, or an artist, and to each of these pursuits, and indeed to many others, photography lends its aid. We are of opinion that any man with a hobby, scientific or artistic, can increase the pleasure of that hobby to himself, and its value to others, by adding to it a knowledge of photography, whereby he will be enabled when travelling to obtain permanent records of points brought under his notice during his wanderings. Photography gives a zest to travel; it affords an aim to a journey that might otherwise be objectless; it encourages and develops the powers of observation, and often produces results of permanent value to art, to science, and to letters, whilst it tends to raise in the mind of one who has hitherto been a mere tourist the conviction that he can turn his touring to some advantage for the gratification of others who cannot travel, and fires him with an ambition to become really a traveller, and so add to the world's knowledge of geography, of archaeology, of history, and of architecture.

The Royal Geographical Society has long recognised the importance of photography, and instruction is given to such of their members who are intending to make any geographical expedition, and their "Hints to Travellers" (published by Stanford) contains an excellent little article on the subject, written by the late Professor Donkin, whose untimely death in the pursuit of science must be deeply regretted by all photographers, all mountaineers, all geographers, and all scientists. At a meeting of the same learned society, after a paper illustrated by photographs, read by Mr. Theodore Bent, on his recent explorations in the south-eastern corner of Asia Minor, the President (Right Hon. Sir M. E. Grant-Duff) laid special stress on the value of such private enterprises as those of Mr. and Mrs. Bent.

But just now we have arrived at the veritable touring season, and numbers of amateur photographers are getting ready their apparatus to sally forth for their usual campaign into all the pleasure-resorts of England and the Continent, and very opportunely there have appeared two articles, full of wise advice, in the current number of the *Photographic Quarterly*, one pointing out the value of some distinct aim and object in photography, and the other treating of the "Tourist's Equipment."

With respect to tourist cameras, so far as we can see, there is not yet invented a camera that successfully combine lightness, compactness, and rigidity to the fullest extent of these virtues. The great majority of such instruments have necessarily double-extension fronts, and when racked out to almost their full extent with a long-focus lens (usually heavy) for taking distant objects, the centre of support is moved too far back and causes instability; and again, the striving after compactness has necessitated, in most instances, the use of conical bellows, never so satisfactory as the parallel ones; when using a wide-angle, short-focus lens. The writer is in possession of a 10 by 8 camera, of Manchester manufacture and excellent workmanship, which only weighs 7 lbs. 12 ozs., and is as rigid as any tourist camera yet on the market, and with a roll-holder which only weighs 3 lbs., the total weight of apparatus to be carried into the field, including all necessary paraphernalia, barely reaches 15 lbs. A tripod head for the stand is not nowadays a necessity, since all good cameras are



made with a turn-table, the legs fastening into the base-board, thus saving a little weight and giving extra security. As Precentor Mann, in his able article in the *Quarterly*, remarks, the Ashford tripod fulfils all requirements, and we may add that it is no doubt the case that a firm, strong, and rigid stand may do much to make up for any flimsiness in the structure of the camera. In travelling, the legs can always be stowed away with the umbrellas and sticks in the bundle of wraps which all tourists must add to their impedimenta. It is a good thing to have two little straps fastened to one of the legs so as to strap them round the other two and keep them all together; or better still is a waterproof canvas case for the legs. If you are obliged to use a tripod head, and a screw to fasten the stand to the camera, tie the screw on to the tripod head to prevent its getting lost. It is most annoying to find oneself in the field without it, and it is, moreover, advisable to take an extra one with you. It is, of course, better, by exercising the greatest caution, to endeavour to prevent accidents happening to the camera or to the tripod. They should never, when actually *en voyage*, be allowed out of the sight of their owner, but yet accidents will sometimes happen. The most common is the smashing of the ground-glass, and it is therefore always as well to take a couple of extra pieces. They travel quite safely if done up between two perfectly flat pieces of board,  $\frac{1}{8}$  to  $\frac{1}{4}$  of an inch thick, and can be packed away in the bottom of a portmanteau until required. In the event of the camera having a fall or a severe blow or shake, the screws are liable to be loosened, and it is not a bad plan to have a small screw-driver amongst the travelling necessities, and a few screws of the same size as those used in the construction of the camera and tripod. The latter more often suffers from loose screws than the former, and should be carefully looked after in this respect. A few tin tacks and large drawing pins should be found amongst the articles stowed away in the camera case, and a good large piece of ruby fabric for fixing over the window with the drawing pins, when changing plates during the day. The tin tacks can be used for nailing up the blankets, and the traveller's rugs over one window (when there are two) or over a portion of a single window; in order to keep the rugs and blankets down against the windows, so as to prevent light coming in at the bottom, the bolsters and pillows off the bed can be used. The writer has often by these means made an ordinary hotel room into a very workable dark-room, both for changing plates in the daytime and for developing. Whilst on the subject of changing plates in hotels, we would warn our readers against bedrooms that have a glass window ventilator over the door (very common in Continental hotels); they give much additional trouble when the photographer wishes to exclude extraneous light, and usually open on to a passage where gas is burning at night, which those who are not forewarned may find suddenly lighted whilst they are in the act of changing their plates. Some form of collapsible ruby lamp is of course a necessity.

A word as to changing plates on board steamers. The Orient liners that are now engaged in pleasure cruises have dark-rooms fitted up on board. We are deeply grateful to the Orient line; for their enterprise they deserve well at the hands of all tourist photographers; and we can only wish that the P and O would follow their excellent example, but there, and indeed on most other steamers, it is necessary to devise methods for changing plates in the cabins. All round the top of most cabins runs a metal grating for ventilation purposes; this must first be carefully stopped up with rugs, pillows, etc.; red fabric can then be carefully pinned up over the port-hole, and a fairly good little (very little) dark-room is improvised in about

ten minutes. At night-time the electric light can be utilised, and the photographer should carry with him a bag made of ruby fabric or of two thicknesses of turkey twill, the mouth of which can be drawn together tightly, with strings; this can be tied over the hanging electric lamp globe (usually about the size of an ordinary gas globe), and the light is then perfectly safe. The ventilation grating must be stopped up at night as well as during the day because of the electric light in the passage, which streams through its crevices. It is far better thus to use the electric light than to switch it off and use a red lamp, for it is contrary to ships' rules to have unprotected lights in the cabins, and a passenger should never do anything that would lead to the smallest risk of fire on board ship.

On the question of plates *v.* films it is not easy to give acceptable advice, but certainly it is undeniable that if the tourist photographer is working any size above half-plate he will find his luggage exceedingly weighty if he adopts the former. If he takes as many plates as he would be likely to use during a trip of say three weeks, and with as large a size as 10 by 8 (which is certainly of all sizes the most desirable and satisfactory), plates, owing to their excessive weight, are almost an impossibility. Yet, on the other hand, it is not safe for a worker who has devoted himself entirely to glass plates to go for a trip taking with him for the first time only films; the result might be irrevocable disaster. Therefore the tourist should, before starting, give himself sufficiently long practice to render himself efficient in the working of films, preferably the new rollable Eastman film, and then if he likes to take a supplementary dozen or two plates away with him, he need not fear a crop of indifferent negatives. Let all plates and films be fresh, and test the batch before starting, and remember that if you are fond of photographing interiors, Edwards's plates are (so far as we have experience) the only ones that never produce halation. In our opinion one of the best films ever put on the market was the "Froedman," but it was not rollable. The new Eastman film is a wonderful invention, and is almost everything that a traveller or tourist photographer can wish for, but it wants practice in manipulation, and in our opinion it is an error on the part of the Company not to issue a film with a slower emulsion, as well as one with an emulsion marking from twenty-six to thirty on the sensitometer, a rapidity that fairly runs away with most people, and is really only suited for instantaneous work.

We now come to the vexed question of packing plates, and the writer can only reiterate that which he has formerly impressed upon readers of the *AMATEUR PHOTOGRAPHER*, that the most efficacious and the safest method of packing plates is to enclose them, either singly or in couples, *back to back*, in black paper envelopes. Directions as to the method of making such envelopes were given in the *AMATEUR PHOTOGRAPHER* of August 30th, 1889, to which we must refer the reader for details, and the writer can only assure tourist photographers that he has kept plates, and even Isochromatic plates, in such envelopes for months, and in one instance for over a year, without their suffering any deterioration. Above all, never travel with plates packed in grooved boxes; they are very convenient for storing negatives at home, but for travelling they are the greatest delusion.

When much travelling on ship-board is contemplated, it is necessary, for the preservation of plates or films, that they should be packed in air-tight tin cases. The old paper-backed stripping film of the Eastman Company used to suffer from damp on board ship, even more than glass plates, when not suitably protected. The new rollable film does not suffer to anything like the same extent, but still for an



ocean voyage it is certainly desirable that the spools should be protected in this manner, and it would be well if the Eastman Company could see their way to issuing with the spool's, when required, suitable tin cases into which the existing cardboard cases would fit, and only require soldering down. Never forget to dust, with a broad soft camel's-hair brush, both plates and films after a journey, and the night before starting on a photographic expedition. In the case of a roller slide, it is, of course, only possible and necessary to dust that portion of the film which is actually in position for exposure.

In connection with lenses it is a good practice to have a wash-leather bag made for each, so as to prevent their getting scratched. Lenses are weighty objects in proportion to their bulk, and, as Mr. Precentor Mann has pointed out, two—a rapid rectilinear and a wide-angle doublet, fitting the same flange—are all that are likely to be required. The invention of the Iris diaphragm now prevents the loss of the stops and makes one thing less to remember to take with one when going into the field.

Everybody must needs suit his own fancy amongst the innumerable forms of shutters, only remembering that the lighter the build of the camera the greater the necessity for a shutter that does not kick. We have found the Newman and the Thornton-Pickard fulfil all reasonable requirements, and the latter is the less cumbersome of the two.

A difficulty is often met with in deciding upon a suitable case or bag in which to carry the photographic apparatus, when actually travelling on board steamers or in trains. In the case of a whole-plate outfit or anything smaller, a suitable sized *wide-mouthed* leather hand-bag is the most satisfactory, attracts no attention, and should hold everything except the legs. A half-plate camera with all appurtenances, and six double dark-backs will go into an 18 inch bag, and if the photographer choose, can be so carried into the field, but in our opinion it is then more convenient to have two packages. In the case of any size larger than a whole-plate, there is greater difficulty, for no reasonably-sized bag will contain a 10 by 8 apparatus, and we have found that by far the best case for such an outfit is what is known as a dress-suit case, made either of mail canvas or leather. The bags are flat in shape, and are easily stowed under railway carriage seats or ships' berths. They are strong, wear well, and are sufficiently commodious to contain everything necessary, even the legs (if they will fold up short enough), to which may be added requisites for the night, so that with one package the traveller can be perfectly independent, for so long, that is to say, as he can bear to be parted from his wardrobe luggage. Such a case twenty-four inches long (suitable for 10 by 8 outfit) costs a trifle over 30s., considerably cheaper than the regulation leather camera case sold by the dealers, and, though strong, are not nearly so heavy. Naturally, with all requisites well packed inside it, such a case becomes far too heavy, and would in any event be too cumbersome to be taken into the field, and it becomes necessary to have two light waterproof canvas bags made, one for the camera and the other for the dark-slides or roll-holder, together with lenses, shutter, etc. If using a roll-holder and a light make of camera, the photographer should be able to go into the field with not more than 7½ lbs. in each hand, and enough films, say, to make twenty-four exposures, if he is so extravagantly disposed—surely not too heavy a weight for a man of average activity. The camera, etc., is best packed, in its camera case, into its travelling case, taking care that the clasp of the field case does not press against the ground-glass. Dust is thus to some extent excluded by the double casing.

Some photographers, either from impatience or from want of confidence in gauging the necessary exposure re-

quired, advocate the development of plates while *en route*. In such cases Tylar's paper trays, which pack flat, are most useful, and some form of concentrated developer is also necessary. There are formulas for many of these published, but this is hardly the place to quote them, or to dilate upon the capital method for developing without fixing or prolonged washing, when travelling, mentioned in a letter to the AMATEUR PHOTOGRAPHER of Aug. 8th, 1890, *q. v.* Our own opinion is that it is far better to postpone development till home is reached, with all the convenience of one's dark-room, except only in such cases where plates and films are being used, the rapidity and behaviour of which are an unknown quantity to the worker.

The custom-houses of the Continent do not now offer any difficulties, so that photographers need not hesitate to take as many plates as they are likely to require, and need not trust to being able to procure them in the larger Continental towns. The customs officials of the west are fairly acquainted by this time with the photographic apparatus, and Italy is the only country where their curiosity under the guise of official zeal is liable to exceed their politeness or their indifference. In the east a small bribe quickly settles any little difficulty; but let tourists remember never to rub a customs official the wrong way and to have all their packages opened before being asked any questions. Roughly speaking, photography is permitted in all European countries, except Russia, where special leave and special official papers have to be obtained, and are only procured after much tedious inquiry.

Finally, we would say to tourists, conform yourselves to the customs of the country you happen to be visiting. The public life of different countries varies much; do not carry insular prejudices and eccentricities to such an extent as to be offensive to those who cannot possibly understand them, always remembering that an Englishman should be a gentleman even before he is an Englishman. Be independent in your travelling, trust to none of the popular tourist agencies, find out your own trains, choose your own hotels, make your own bargains, do not be ashamed to be seen using your red-covered guide-book, and provide yourself with a railway guide of the country you are in (*not* Bradshaw's Continental Guide, but an official one published in the country). You will thus learn more of the people and the countries you travel through than if you journeyed according to a cut-and-dried programme with a crowd of others whose incursions into a foreign city or village in whole flights resemble nothing so much as the desolating ravages of a cloud of locusts, since they, for the time being, spoil everything they settle on. Remember, too, that your dignity is not lowered by bargaining at hotels abroad—always in towns, certainly, ask the price of your room, etc., when you are shown into it, and, moreover, insist on a definite answer. This is absolute necessary in Italy and the south of Europe generally, and it is only in the out-of-the-way country places where but few tourists have as yet penetrated that the natural honesty of the natives can be relied upon, and that the stranger can be sure that he will not be fleeced. In this matter it is certainly not for Englishmen to throw stones, since there is no country in the world where foreigners are so frightfully swindled as our own. In most countries the natives themselves bargain, and if the stranger does not do so too he is only thought an easily cheated fool for his *want* of pains. If you begin by learning to shift for yourself you will never regret it, and travelling in foreign countries will become as easy, as natural, and infinitely cheaper than travelling in England. Therefore, in closing this article we can only wish our readers *bon voyage*, and an eminently satisfactory series of negatives, some of which we hope it may be our good fortune to see on a future occasion.



## Letters to the Editor.

### EXHIBITION AT VENTNOR.

SIR,—Kindly allow me to announce, through your columns, that the General Committee of the Ventnor and Bonchurch Literary and Scientific Institution, which was founded in 1838 by the Rev. James White, the historian, and other leaders working with him then for the mental improvement of the masses, have decided to hold a Photographic Exhibition this autumn, open to all amateurs of the United Kingdom.

The President of the Institution (Sir Monier Monier-Williams, K.C.I.E., Boden Professor of Sanscrit to the Oxford University), who resides here, has kindly consented to inaugurate the exhibition by delivering a lecture on some subject relating to India, illustrated by photographs from his beautiful collection.

Colonel Malden, a well-known resident amateur, is a Vice-President of the Institution, and has promised to assist in the matter.

You shall have further particulars as soon as the details are arranged by the Special Committee appointed, but I may mention that manufacturers will be allowed to show apparatus.—Yours, etc., JOHN G. LIVESAY.

Cromartie House, Ventnor, August 16th, 1890.

\* \* \* \*

### THE PRICE OF PLATES.

SIR,—I always read your paper, and am much impressed with the fact that you so often admit there are two sides to every question. While admitting, on the face of it, the price charged "Caught" for plates at Ilfracombe appears to be extortionate, although I do not know either place or so-called dealer, amateurs should understand that some of their fellow-workers at the seaside freely open their dark-rooms, although they pay rent, rates, and taxes for their premises. Amateurs sometimes ask for materials which, bought in small quantities, cost full advertised price and carriage, and in the case in point the advertised price is 1s. 4d., the cost of carriage would be 3d., writing for them rather over 1d.; so it is possible the dealer might have paid 1s. 8d. for what he sold at 2s., and then have it suggested he was trying to catch a visitor.

I can write as one who meets with much politeness from visitors, but some of them think every man is a rogue, when he could prove himself honest if allowed to do so.

The dealers so-called will probably adopt the plan followed here, where, I am sorry to say, we have to get all our materials elsewhere.—Yours truly, THOS. BAKER.

Clevedon, Somerset.

\* \* \* \*

### ANIMAL STUDIES AT EDINBURGH EXHIBITION, 1890

SIR,—Some of those who make animal photography their specialty have been working quietly for a long time to get their studies removed from the instantaneous class at exhibitions (where they are mixed up with yachting scenes, breaking waves, and street scenes) to their proper place, viz., under the heading *scientific*; and as the Committee of the Edinburgh Exhibition have just written to say that they will do this, I hope that all who can will enter as many as possible and make a good show, as it is the first time that we have been thus rightly classified.

May I urge this point upon hon. secretaries of other exhibitions, as, unless one tells a direct untruth, by entering photographs under the heading *Instantaneous* which have had from one to two seconds exposure, one rarely has a chance to show them at all.—Yours, etc., GAMBIER BOLTON.

\* \* \* \*

### THE INTENSIFICATION OF NEGATIVES.

SIR,—I would not trouble you with this letter if it was not upon a subject that I think is worth discussion, one so often has negatives that would but for intensification be absolutely worthless, being too thin to print from, either from under or over exposure, generally the former. The simplest and most effective intensifier I have used is as follows:—

Perchloride of mercury	..	..	..	1 oz.
Water	..	..	..	20 ozs.

After intensification blacken with ammonia in the ordinary way. After a good many experiments I have found, in eight cases out

of ten, it is more advantageous not to blacken with ammonia at all, but simply to wash well from about three to four hours, and then to dry. By this means you obtain the required density without such great contrasts, especially in portraiture, and you also get a much softer print than you otherwise would if you had used the ammonia.

Now the question is, are these negatives permanent? As far as my experience goes, I find if varnished they are, if not they more often than not eventually fade entirely away.

Will others who have tried this way of intensification give their views?—Yours very truly, WENTWORTH A. J. CROKE.

August 16th, 1890.

\* \* \* \*

### ARISTOTYPE PAPER, AND HOW TO USE IT.

SIR,—Seeing so many enquiries, and being asked so frequently about aristotype and chloride papers, has induced me to write my own experience with the same, in hopes that it may by chance prove of some little use to a few beginners who have met with some of the difficulties which present themselves in the use of these papers.

In the first place it must be borne in mind that the paper is exceedingly delicate, and the greatest care must be observed throughout the whole process in order to avoid spots of dirt sticking to it, and finger-marks, which show very badly if carelessly handled, and also to prevent the film separating from the paper, which has often proved very troublesome.

With regard to the printing, if it is intended to use the toning and fixing bath all in one, the printing must be much deeper than otherwise; but I consider this bath too extravagant, and not so much under control as either the ordinary acetate of soda or borax baths. The printing must be carried on until the detail begins to be obscured and the deepest shades begin to bronze. Of course, a great deal depends upon the negative as to the resulting tone of the print, for the deeper it is possible to print, the richer black may be got in toning.

The prints may now be stored until a convenient time, and sufficient have been printed for toning; the more the better, as it saves the gold. Any ordinary toning bath will do. I generally use—borax, 4 drms.; water, to 20 ozs, and just before use add 2 grains of gold in solution, for about every twelve half-plate prints to be toned.

Before toning, carefully wash in five or six changes of water, avoiding water running with any force from a tap, but rather soaking for five or ten minutes in a basin in each change of water; during this time prepare the bath for toning, say six of the prints; take them one at a time, and place face downwards in the toning bath, and keep moving continually by withdrawing those from the bottom and placing them on the top, examining from time to time, as they tone very quickly if the temperature is not too low. The question arises, when shall I stop? If you want the resulting print to be a rich chestnut-brown, stop when the reddish tinge has nearly disappeared, which will be seen by holding the print up to the light and looking through, or on looking down on to it the colour appears a beautiful purple; if the toning is still continued until the lighter shades threaten to turn slaty and the dark shadows black, the finished print will be a very rich purple black. Almost any shade can be got by carefully observing the colour on removal from the toning bath. As each print is removed, another takes its place, and once more gold solution added, as the process gets slower, until all are finished. I should mention that each print is put back from the toning bath into the basin of untoned prints; this is done in order to avoid having anything whatever to do with hypo until all the toning materials are cleared away. The prints should be now soaked in a large dish of water, and then placed in saturated solution of alum for a quarter or half an hour; again well wash, and afterwards fix in hypo 1 in 5 for about fifteen minutes (this solution of hypo should be freshly prepared, and no ammonia or any other foreign matter added), afterwards wash in running water for some hours, so arranged that the prints are kept moving, as they would otherwise sink very quickly, and also in such a way as not to allow them to come under the stream of water, as they are far easier damaged than ordinary albumenised paper. I should have said that a second bath in alum after about a quarter of an hour's washing would harden the film and facilitate the removal of the finished print from the glass, or whatever it has been dried on.

The following process of finishing should be done in the coldest possible place, and where the methylated spirit is used no great



hurry is required in using the squeegee, as the spirit evaporating for a short time materially reduces the temperature, which is a great advantage.

The most artistic finish is by squeegeeing the print on to ground glass, but unless the glass is very good it will give the print a frosted appearance, from small surfaces of plain glass where the polish has not been ground off. The glass should be rubbed over with a solution of one part of white wax in three parts of turpentine, and with a clean piece of flannel rub again until the surface is evenly coated. The prints may now be taken straight out of the washing water and squeegeed with a roller squeegee on to the glasses thus prepared; a separate piece for each print is most convenient. If the enamelled surface is required, the process is somewhat different. The glass should be of good quality (*i.e.* if glass is used), preferably plate and free from scratches. Clean with strongest liquid ammonia to remove any trace of grease, and polish thoroughly with talc or French chalk. Now take the prints out of the washing water and soak for about ten minutes in methylated spirit, and then squeegee on to the glass as before. In using the squeegee remember to work all one way so as to drive out all air bubbles.

When perfectly dry, hold the glass to the fire until quite hot; the print will then begin to give way from the glass round the edges, and by inserting a piece of stiff paper and using like a spokeshave, or even a thin card, it may be removed quite easily without even a crack, very few will be found to stick if the glass has been properly cleaned, those on the ground glass will almost drop off themselves as soon as dry, without any heat.

The enamelled prints should be mounted with fish glue or anything similar, by the edges only, about one-sixteenth inch all round, and the roller squeegee again comes in useful. The matt-surfaced prints may be done the same way, or pasted all over with starch and passed under a roller, and your print is finished; but success depends mainly upon three things, *viz.*, patience, observation, and cleanliness, otherwise you will find bits of dirt on the face of your print which you cannot remove, or your print is any other colour than what you want, or you have been in too great a hurry and not properly cleaned your glass plate, and omitted some little detail which is sure to be found out when it is too late. And as a last word of caution, let me say that the utmost care is required throughout the whole process, for it is "one of those things that make swearing easy." I hope that the few hints that I have mentioned will prove a help to somebody, and that some of our brother amateurs will let us have a little more of their experience on the same and similar subjects, such as bromides, etc.—Yours, etc.,

A. J. S.

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#### "F. G. S., THE CONVENTION, AND "BAITED DOGS."

SIR,—Mr. Pringle is undoubtedly right. We have had enough—too much, indeed—of this ill-conducted "wrangle." Its influence on one's literary style is demoralising, and it is of no earthly interest except to those who have rashly entered the lists and provoked a useless logomachy.

The pleadings are closed. Mr. Pringle has signified his intention to move no further in the matter, which is the wisest resolution one can make when he is "cornered," so as one of the jury of readers before whom the case has been laid, I give you my impressions, premising, in token of my impartiality, that all the parties are utterly unknown to me, and that with Dr. Emerson's views generally my own are distinctly at variance.

"F. G. S." has not taken up the challenge flung down with so much indiscreet bravado by Messrs. Pringle and Bothamley, who are infelicitously referred to as "baited dogs" (Pringle). Probably "F. G. S." thinks it unnecessary, and he has borne his provocation with so much quiet dignity that it may be he is right. However, I accept the challenge he disdains. Happily, the Queen's English is nowadays not uncommon or difficult of interpretation, and no one acquainted with it and not blinded by rage can regard Mr. Newman's paper as other than a "personal" attack on Dr. Emerson. That it was a "savage" attack is too much in evidence to be in issue.

One quotation culled from several similar passages will suffice for my purpose: "I unhesitatingly say that *he* has written on art without adequate knowledge and reflection, as *he* has frequently imaged nature without refined taste or imagination!" (Newman.) If this is not savagely personal, what is?

Observe that Mr. Newman does not refer to Dr. Emerson's book or his views, but to himself. It is "*he*," Emerson, who "has

written, etc.," and it is *he*, Emerson, who has (mark you) "frequently" imaged nature, etc."

It may be that "baited dogs" may still fail to see the personality of this passage. In that state of "mental obliquity" (Pringle) I must leave them.

In reply to Dr. Emerson's remark that Mr. Pringle "might have assumed that 'F. G. S.' was a gentleman," Mr. Pringle says that he has "not yet seen cause for any such special consideration."

This is a feeble attempt to appear smart, and is certainly in execrable taste. "F. G. S." might make a similar retort, and with very good reason, inasmuch as Mr. Pringle, knowing, as he did, that Dr. Emerson had declined his invitation to join the Convention, suppresses that fact from your readers, and wilfully misleads them by asking for "proof of this," which is, by implication, a denial. When proof is offered, and we learn that it is in black and white, and so indisputable, Mr. Pringle avoids Dr. Emerson's offer to publish the proofs, and has the effrontery to tell us "that he was only employing" a ruse!

After this explanation what can we think of Mr. Pringle?

I will tell him what I know many of us, and what I believe a vast majority of us think generally. We think that "F. G. S." has wisely preserved both his anonymity and his equanimity, and that his description of Mr. Newman's paper as a "savage personal attack on Dr. Emerson" was concise and correct; that Major Becher's views upon this question are the only common-sense ones, and that they will be widely if not universally endorsed; that the Convention has not gained in prestige by the manner in which "baited dogs" have interposed in its behalf; that it may be natural for "baited dogs" to snap and snarl, but that their doing so excites ridicule, and not sympathy; and that they would cut a less sorry figure if they withdrew with characteristically adjusted tails in silence.

"Baited dogs" have indulged very freely in sarcasm and innuendo, and made some feeble and rude attempts at "tall" writing. But their similes are unhappy and their metaphors very mixed. One is bewildered, for instance, by the suggestion of a "slippery critic (?)" (Bothamley) lying in ambush, with his "rusty blunderbus," loaded presumably with "pestilential virus" (Pringle), which is so explosive in character that it "consumes its own pabulum and perishes," leaving us the spectacle of a "germicide" pursuing his path "fearless and unscathed." How nice, but what ridiculous rubbishy rhodomontade! We are told that to 120 people, not inappropriately likened to the tailors of Tooley Street, "anonymous assertions" are "distinctly amusing" (Bothamley), and that "suggestions made anonymously" have no weight (*ibid.*). This will no doubt be applied to anonymously expressed opinions. I shall nevertheless withhold my name, because when one has cause to apprehend that his adversaries will not fight with the measured weapons of logic, but resort to the bludgeons of abuse, he is wise to take shelter in anonymity, especially if he be likely, as here, to come across "baited dogs" in conjunction with a "pestilential virus."—Yours, etc.,

ANOTHER OF THE "HOI POLLOI."

August 16th, 1890.

\* \* \* \*

#### TONING.

SIR,—Notwithstanding all that has been written about toning, failures are still common with amateurs. The prints are fully washed, the gold solution carefully prepared, and the dishes apparently quite clean, yet the prints refuse to change colour, remaining even after being left a considerable time in the bath a disagreeable foxy-red, while often much gold is wasted in trying to force to the desired tone.

Now when it is seen that the prints have been in the gold bath a reasonable time without changing, they should be taken out and well washed, and transferred to the lead bath, as given in the AMATEUR PHOTOGRAPHER, November 15th, 1889, when it will be found that the desired toning takes place. I have frequently thus saved prints which otherwise would have been torn up and cast aside.

The other day I came upon some old sensitised paper that had become a dirty yellow, and being curious to know if it would still print, I tried it with two negatives. These printed well, though slowly; but when I came to the toning the gold seemed to have no effect. I therefore changed them to the lead bath, with the result that they toned quite satisfactorily, and with good colour, the yellow tint disappearing by the time they were fixed.



As the lead bath does not keep, I have a bottle of hypo, 2 ozs. to the pint, and another with the acetate of lead, 10 per cent., so that the bath can be prepared at once as it is required.

There is really very little trouble in finishing this with the lead toning, as the fixing of the prints goes on at the same time. —Yours, etc.,

DRY-PLATE.

\* \* \* \*

#### RISE IN PRICE OF SILVER NITRATE AND PLATINUM SALTS.

SIR,—Owing to the continued rise in price of silver nitrate, I find I am unable to maintain the old prices, and have been obliged to raise the price of my sensitised papers by 10s. per ream.

The successful results obtained by printing on my paper through green glass have created such an enormous demand that I must apologise if at any time a trifling delay in the execution of orders takes place.

The price of Dr. Jacoby's platinum paper has also been raised from 2s. to 2s. 6d. per sheet, owing to the high price of platinum salts.—Yours truly,

OTTO SCHÖLZIG.

31, Binfield Road, Clapham Road, S.W.

Aug. 19th, 1890.

## Photographing in Iceland.

### I.—THE ROUND TRIP IN DETAIL.

NOTES of a photographic expedition in the course of which the leader of the expeditionary force is the first man in the world to ascend Mount Hecla with a camera, and get two pictures of the crater of that remarkable volcano, will be of peculiar interest to readers of this journal. Those who care to follow the details of such a trip will find an instalment in the AMATEUR PHOTOGRAPHER each week until the whole journey is completed.

Before commencing the story proper let us take a brief retrospect. Some time last May Mr. Geo. Thordahl, a Dane, resident many years in Iceland but a frequent visitor to England, conceived the idea of opening up "Ultima Thule" as a country for tourists. Accordingly Mr. Thordahl came to Liverpool and made his scheme public. But the proverbially slow Britisher didn't take to the idea with that alacrity which is perhaps one of the very essentials of success in such an undertaking. Iceland was little known and less understood. People asked if the party would escape death from cold and exposure; would they require bear-skins as part of their outfit; was it not madness to tempt Providence by venturing into an ice and snow locked region when they could find much more congenial holiday grounds nearer home? It was useless to reiterate that during three or four months of the summer the temperature in Iceland is several degrees higher than in England, that there is a midnight sun, and a healthful, bracing climate. The sceptics tapped their noses, winked their eyes, and turned their faces away with a grin and an expression of good-natured pity for your childlike simplicity and confidence. This pardonable ignorance concerning Iceland, the scepticism and prejudice, combined with the fact that the scheme was very indifferently introduced to the public, proved rather disastrous. It was intended originally to convey the party—which it was expected would number about thirty—from Liverpool to Iceland, in a well-known steam yacht of exceptional reputation for safety and comfort. This plan of campaign, however, was ultimately abandoned, the party after a delay of a few days leaving Leith for Reykjavik (the capital of Iceland), in the Leith and Iceland Steam Shipping Company's steamer *Magnetic*.

Our party at the time of sailing numbered nine, of whom more than one-half were directly interested in photography. Mr. Paul Lange, chiefly through whose influence at least five of us had engaged in the expedition, naturally gravitated

to the leadership of the force, and a thorough-going leader he proved in all phases and stages of the journey.

The *Magnetic*, a most uninviting boat, left Leith on the afternoon of Monday, 30th of June. A high wind was blowing and a lively sea running, and our voyagers were *hors de combat* in less than an hour from the start. Not all the firm resolutions "to keep up" that were ever made or all the decoctions ever compounded could withstand that wind and that sea. The *Magnetic* rolled and pitched with pitiless regularity and maddening consistency; the Iceland expedition, for the time being, found a dead—very dead—level. The, in romance, "exhilarating" motion of the ocean was excruciating in reality, but had to be endured, perforce, with but momentary intervals, until the following Friday, when Reykjavik was reached. Still, ours was reckoned a "fine" passage; none of the party are ambitious to make the run when it is "rough."

Here it may be said, for the benefit of future voyagers to Iceland, that there is always a good deal of weather about the North Atlantic. If it doesn't show itself above, it makes itself felt below, which is much the same thing when one is on one's back and in agony. Lively recollections of the first photographic expedition to Iceland will remain with the Lange party for a long time. Two or three gentlemen enjoyed the many pleasures of *mal de mer* from land to land. But the voyage from Leith to Reykjavik is not without interest, if one can crawl on deck and look around. The scenery around the north of Scotland is superb, and on a really good day affords many fine subjects for choice shots. Our party on the *Magnetic* were not in working order for these, of course; the mere mention of a camera at the time would have driven our greatest enthusiast to say nasty things. Trading ships under full canvas, schools of whales, and other objects of equal interest were passed, at which not a single lens was levelled. In good time, however, the Westmann Islands were made, and here the first shot of the expedition set the ball rolling. The Westmann or Westmen Islands—Irishmen's Isles—are a group of islands off the south coast of Iceland. They are huge, black, volcanic rocks, thrown up higgledy-piggledy in wild disorder. The largest, Heimaey—Home Isle—boasts a trading post and a church. The total population is between 100 and 200. Millions of sea birds build in the rocks, rising in large numbers at the report of a gun or being otherwise disturbed. Two or three cameras got to work here, the captain of the *Magnetic* obliging the operators by slowing the vessel down, altering her course, or stopping her as requested. Leaving the Westmann Islands behind, a few hours' sail brought the *Magnetic* within sight of the Icelandic capital, and preparations for disembarking were hastily completed.

To say we were thankful to touch *terra firma*, is putting the matter very mildly—we were as grateful and thankful a party as ever existed. Indeed, on the 3rd, we had thrown a sealed bottle overboard in which were contained the names of our party, our destination, and the nature of our mission. As a great secret it may be divulged that this little act was really a kind of thanksgiving; we had sighted Iceland and were satisfied. We arrived at Reykjavik at 2 o'clock in the morning and landed at 10.30. As soon as practicable we made our way to the "Hotel Iceland," a very clean and comfortable house with good beds and creditable appointments all round. Of course, we lost no time in taking a stroll through Reykjavik, but found little of more than passing interest.

The town, which has a population of about 3,000, straggles a mile and a half or so across Reykjavik Bay. The houses, some of them modern, others primitive, are built of



timber, lava, and, in some cases, turf. The latter are the older residences. Perhaps the most prominent feature of the place, and one which asserts itself most unpleasantly, is the odour of codfish. Cod, in all stages, litters here, there, and everywhere. Some of it is recently caught; a great part of it lies rotting on the beach. Extinct volcanoes and immense lava beds extending many miles surround the town on all sides. It is a veritable cinder country, or rather, country of cinders. There is a brilliantly clear blue sky, which makes the scene at once fascinating but weird in the extreme. What the effect is in winter, when appalling hurricanes shake the island, and the mighty waves of the North Atlantic thunder on the coast-line, can only be faintly conjectured. Even under auspicious and genial conditions one is beset by the thought that he is treading one of the wildest and most volcanic regions of the earth. "If," said one of our party, "his satanic Majesty ever lived in the world, his home was in Iceland." However, one soon gets accustomed to the surroundings in Iceland as elsewhere; the feeling of trepidation rapidly wears off, and you shake down easily and comfortably to the new conditions.

Our first luncheon at the "Hotel Iceland" was a pronounced success, various dishes of raw fish and a liberal number of toasts materially assisting in the enjoyment of the meal. At night we made a raid on the post office, cornering the market in stamps, post-cards, and paper. Of course, there is no telegraphic communication between Iceland and Europe; you are as effectually isolated from the world you are accustomed to as 1,000 miles of ocean can isolate you.

## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(The Yorkshire College, Victoria University).

(Continued from page 120.)

EXPERIMENT 45.—(a) Raise one of the bottles of hydrogen from the tray, keeping it mouth downwards, and bring a lighted taper to the mouth of the bottle. *Observe* that the hydrogen ignites and burns with an almost colourless flame. Push the lighted taper up into the bottle; *observe*, that the paper goes out, but can be lighted again at the mouth of the bottle.

Hydrogen is a combustible gas, but will not support combustion.

(b) Take the empty bottle from the preceding experiment, hold it mouth downwards, raise a second bottle full of hydrogen from its tray, bring the necks of the two bottles together, and pour hydrogen *upwards* from the second bottle into the first (fig. 17). Place the second bottle on the table, and bring a light to the mouth of the bottle into which the hydrogen has been poured; the gas will burn with a slight explosion. Bring a light to the mouth of the bottle from



FIG. 17.

which the hydrogen has been poured; no inflammable gas is left.

Hydrogen is much lighter than air; it is, in fact, the lightest substance known. The hydrogen which has been poured upwards into the empty bottle burns with an explosion, because it is mixed with part of the air which was originally in the bottle. You now see the importance of always being sure that hydrogen is not mixed with air before you bring a light near it. If, in making hydrogen, you applied a light to the end of the delivery tube before all the air had been expelled from the apparatus, you would have an explosion, which might shatter the apparatus and project

the broken glass in all directions in a very dangerous manner.

EXPERIMENT 46.—In place of the ordinary delivery tube of the hydrogen apparatus, put a short tube bent at right angles, and to this attach a straight tube about 15 inches long, and 15 mm. in diameter, well filled with fragments of anhydrous\* calcium chloride, the size of small peas, kept in position by small plugs of cotton wool. The other end of this tube carries a cork, in which is inserted a short tube bent at right angles with the external end drawn out to a moderately fine jet (fig. 18.) Calcium chloride has a great attraction for water, and it absorbs and retains the moisture which the hydrogen carries over from the generating flask, so that when the gas reaches the jet it is dry.

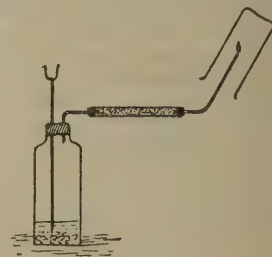


FIG. 18.

When all the air has been expelled† from the apparatus, light the hydrogen at the jet, and hold over the flame a clean and perfectly dry beaker. *Observe*, that the inside of the beaker becomes covered with small drops of a colourless liquid which has no taste or smell. If the outside of the beaker is kept cool, drops of the liquid of considerable size will collect on the inside. This liquid is *water*, which we have previously found to be a compound of hydrogen with oxygen (Experiment 26); it is formed by the chemical union of the hydrogen with the oxygen in the air. This union will not take place spontaneously at the ordinary temperature, but if once it is started by raising the gases to their ignition point, the heat which is developed by the combination will keep the change going so long as the supply of oxygen and hydrogen is kept up. The combustion of hydrogen in the air is therefore due to its union with the oxygen of the air. Not only is water found when pure hydrogen burns, but it is also produced when any substance which contains hydrogen is burnt in the air. For example, water is formed when ordinary coal-gas burns (Experiment 14), because coal-gas contains a large proportion of hydrogen.

Why does the hydrogen burn quietly and continuously in Experiments 45a and 46, but explosively in 45b?

The chemical change is the same in both cases, *i.e.*, combination with oxygen to form water. This combination can only take place when the two gases are in intimate contact; in 45a and 46 this condition is fulfilled only at the mouth of the bottle or the end of the jet, and the flame cannot pass back into the bottle or tube, because it contains only hydrogen without oxygen; nor can it spread into the surrounding air, because that contains no hydrogen. Combustion takes place only at the point where the two gases meet, and whether it takes place rapidly or slowly depends upon whether the supply of the gases to this point is rapid or slow. On the other hand, if the two gases are mixed, the oxygen and hydrogen are in contact throughout the whole mass of the mixture, and if combination is started at any one point, it spreads through the mixture with very great rapidity. Heat is thus developed very rapidly, and the gas expands almost instantaneously. It is this sudden expansion of gases that constitutes an explosion.

That it is the oxygen and not the nitrogen of the air that is active in causing the combustion or explosion of hydrogen is shown by the following facts. If a jet of hydrogen is

\* Anhydrous = perfectly dry and free from water.

† This can be done by inverting a small test tube over the jet, so that it reaches nearly to the bottom of the tube. After some time, remove the test tube, keeping it mouth downwards, and test the hydrogen as in previous experiments.



allowed to burn in a vessel full of oxygen instead of in a vessel of air as in Experiment 46, water is formed; if hydrogen is mixed with oxygen and the mixture ignited, the explosion is much more violent than when it is mixed with air.

EXPERIMENT 47.—Take a strong soda-water bottle of the old fashioned kind, and graduate it in three equal parts by finding how much water it will hold, then pouring in one-third of this amount and making a slight scratch with a file at the point to which the water rises, and finally pouring in a second third and making another scratch. Provide the bottle with a well-fitting cork. Fill the bottle with water, and then fill it two-thirds full of hydrogen in the pneumatic trough and the remaining third with oxygen. Cork the bottle, shake it well in order to mix the gases. Now wrap a thick cloth round the bottle, take out the cork, and bring a light to the mouth, taking care to point the bottle away from you. Explosive combination of the hydrogen and oxygen will take place, and there will be a very sharp report.

Repeat the experiment, but use two parts of oxygen and one of hydrogen; the explosion will be very much weaker. In fact, in whatever proportions you mix the two gases, you will find that you get the loudest explosion with two parts of hydrogen by volume, and one part of oxygen. This is just the proportion in which the two gases are liberated when water is decomposed by electricity (Experiment 26). It is, in fact, the proportion in which the two gases combine to form water, none of either gas being left over.

EXPERIMENT 48.—Perform a similar series of experiments with mixtures of hydrogen and air. You will find that in all cases the explosion is much feebler than with hydrogen and oxygen in corresponding proportions, and the reason is that the nitrogen of the air, which takes no part in the change, retards the combination of the hydrogen and oxygen. The loudest explosion in this series will be given by a mixture of two vols. of hydrogen with five vols. of air, or, since five vols. of air contain one volume of oxygen (Experiment 33), the loudest explosion is given with that quantity of air which contains just sufficient oxygen to combine with all the hydrogen.

(To be continued.)

## Science Notes.

"SPITTA'S wedge" is a neutral-tinted piece of glass which Dr. Spitta has introduced into astronomy for the purpose of gauging the light emitted by the various stars. It is evident that the brighter the star the thicker will be the portion of the wedge which its light can penetrate. In a communication in the June number of the *Monthly Notices* of the Royal Astronomical Society, Captain Abney states that he has been able to "scale" or determine the percentage of light passing through the various parts of the glass wedge by receiving the light upon a piece of platinotype paper, another piece being at the same time exposed in a Spurge sensitometer. The two pieces of paper are then developed and washed together. This method gave results closely accordant with those obtained by Dr. Spitta by four other methods.

There is a probability of the removal of the Chelsea Botanic Garden, which stands at the east end of Cheyne Walk, and which has belonged to the Society of Apothecaries since 1673. There is a cedar of Lebanon in the garden which was planted there in 1683. Although the inhabitants of Chelsea are protesting against the abolition of this "old physic garden," still it would be well for the camera-carrier to pay the place a visit and secure a memorial of it.

At a meeting recently held at Stonyhurst College, it was resolved that the memorial to Father Perry (who died in South America just after he had photographed the solar eclipse in December last) should take the form of a sixteen-inch equatorial telescope.

Could not the following plan be utilised for lantern displays? "An ingenious contrivance has been recently adopted at the

Hippodrome in Paris, with a view to producing scenic effects, in the central oval space, without the spectators opposite being seen at the same time. An elliptical screen of fine steel netting is let down in comparative darkness, so as to be about 12 feet in front of the benches. This is painted on the inner side with a representation of the Place du Vieux Marché, at Rouen (the piece being 'Jeanne d'Arc'), and, as it is strongly illuminated, at a given moment, from the centre, the light outside being low, a spectator at any point has an excellent view of the scene while seeing nothing of the crowd beyond."—*Nature*.

At the meeting of the Paris Academy of Sciences on July 28th, M. Marey presented a paper on "Aquatic Locomotion as Studied by Photochronography." The author has made similar investigations to those of Mr. Muybridge, but with different apparatus. A single camera, the sensitive plate of which takes the form of an endless band moving across the focus of the lens, has been used in the investigations, and is stated to possess many advantages over the multiple camera system. The contractions and dilatations of the body of the jelly-fish, the undulations of the lateral fins of the ray, and the rapid movements of the dorsal fin of the *Hippocampus* (sea-horse) have all been analysed, and in the zoetrope the successive photographs reproduce these motions to perfection.

The *Graphic* for August 16th contains a capital reproduction of a photograph by Major J. Fortuné Nott, of the *Gaur* or *Malay bison*, lately added to the Zoological Gardens.

The following paragraph (from the *Birmingham Daily Mail* for August 16th) strikingly illustrates the value of amateur photography in portraiture. In Cardinal Newman's weak state of health only some one living with him could take advantage of the favourable moments for the work—moments which so seldom occurred:—

"In such a strongly marked character as that of Cardinal Newman it is not surprising to find strong likes and dislikes. In his latter years one of the Cardinal's strongest dislikes was to have his photograph taken. When he returned from Rome after his elevation to the purple he unbent so far under his new dignity as to give a few sittings to some of our local photographers, and it is from the negatives then taken that most of the pictures now to be purchased are printed. The favourite photograph of the Cardinal in his broad-brimmed hat is one of these. But it is about nine years since these negatives were taken, and these nine years have accentuated to a great degree the strongly marked lines of his remarkable face. Fortunately, though the Cardinal could not be persuaded to sit to a professional photographer, one of the Fathers of the Oratory is a skilful amateur, and he has taken many splendid negatives of his Eminence. Professional aid has been always called in to finish the negative and produce the prints. Every one of these photographs has been registered by Father Pollen, and they will no doubt be exceedingly valuable, especially a couple of very fine ones, which are from a negative taken only a month before the Cardinal's death. A week before he died he was persuaded by the Fathers to sit to a professional. A Broad Street photographer was at once sent for, but when he arrived at the Oratory rain had set in, and his attendants would not risk his coming out of his room, so Mr. Mowll had to go away vastly disappointed, and the golden opportunity never occurred again."

F. G. S.

SUBSCRIPTIONS FOR REPAIRING THE TOMB OF LOUIS MANDE DAGUERRE.—We hope our readers will contribute to this fund. It is much to be regretted that the last resting place of one of the early "fathers of photography" should be falling into decay for want of a few pounds to repair and maintain. Subscriptions will be acknowledged in this column:—

A. W. Gottlieb ..	..	..	..	..	1	1	0
Charles W. Hastings ..	..	..	..	..	1	1	0

SCRAPS AND RAPS.—Mr. W. Tylar, of Birmingham, with his usual promptness, writes us under date of the 15th:—"Referring to letter by Captain Bruno, in last number of *AMATEUR PHOTOGRAPHER*. I have long seen the need of covering dishes during development, and myself always do so. With reference to trays with hinged covers, I have already got some in hand, and shall send a sample on shortly. Perhaps you would like to mention this fact. I have also a lamp in hand that fully meets the requirements he points out. The trays will be on the market very shortly."



## Our Contemporaries at Home and Abroad.

*Anthony's Photographic Bulletin* says, "Our German scientific friends have lately paid a great deal of attention to the meteorological phenomena known as 'night shining clouds,' and experiments have been made by Herr O. Jesse, aided by several assistants, by which photographs of these clouds have been obtained from different points, several miles distant from each other, and by which it has been demonstrated that they exist at a height of at least sixty miles from the earth. It is evident that their illumination is due to reflected light. The height attained by these clouds is something quite remarkable and their composition a matter of conjecture as yet, since the highest altitude reached heretofore by clouds of this nature (Cirrus) was supposed not to exceed ten miles." Articles: "Weights and Measures," "Some Experiences," "Miniature Photographs," "Art of Retouching," "Preparing Line Drawings for Reproduction by Photo-Zincography," "Ethics of Photography and Photographers," etc.

The *St. Louis and Canadian Photographer* for August is the "Grand Convention Number." The frontispiece consists of four prints of a wreath of flowers, one taken on a Seed plate with colour screen, and one on an orthochromatic plate with screen, and one on each kind of plate without a screen. With the screen there is a slight difference in favour of the Seed plate, but without a colour screen there is positively no difference at all. The number also contains a photogravure of Mr. Alex. Hesler, a veteran Chicago photographer, a process reproduction of the Smithsonian Institute, and a process reproduction of a picture, "The Lone Fisherman." There are articles on "The Convention," "The Art of Retouching," "Varnishing Film Negatives," "Recovery of Silver Waste," etc.

The *Beacon* (Chicago) gives the following:—"A formula for a reducing solution is given by L. Belitzki, which is said to possess several advantages over Farmer's well-known potassium ferrid-cyanide and hypo. It is as follows, and must be mixed in the order given:

Water .. .. .	200 parts.
Potassium ferric-oxalate .. .. .	10 "
Sodium sulphite (neutral) .. .. .	8 "
Acid oxalate .. .. .	3 "
Sodium hyposulphite. . . . .	50 "

It is said to keep well if kept in the dark, and may be used over and over, so long as it retains its green colour." Articles: "British Photographic Convention," "Eikonogen," "Keeping Qualities of Gelatine Plates," "Value of Art Education," "Illustrating Poems by Photography," etc.

The *Lithographic Art Journal* (New York) contains the following:—"A new method of lichtdruck, invented by O. Schwartz, is described as follows: As bottom layer serves a mixture of the following ingredients: Take thirty parts of the white of an egg, which has been beaten to foam; thirty parts of water, one-half part potassium, and one-half part of bi-chromate of ammonia. With this cover the plate of glass, and dry the layer by placing it upright; then put the glass plate upon a black piece of cloth, and let the light reach the layer through the glass, which will make it insoluble, and whereby it will become firmly adhesive. The layer which is to serve for printing consists of the following mixture: Two parts of isinglass, twenty-five parts water, eight parts gelatine, which has previously been soaked in water; one part bi-chromate of ammonia, and one-twentieth part of chlorate of chrome. These ingredients are mixed after having been heated somewhat, and then the mixture is poured upon the glass plate and dried at a temperature of 50 centigrades. It is thereafter exposed to light under the negative, and washed with pure water. As a means of hardening, use a one per cent. solution of alum; for etching, ten parts of water with one part nitric acid, and saturate this solution with carbonate of calcium, and add thereto an equal part of glycerine and a trifle of permanganate of potassium. Leave the plate uncovered for half an hour, and then proceed with the printing."

The *Photographic Globe* (New York) contains a notice of the invention by Mr. Bierstadt, of chromo-artotypy, "the printing of collotypes in the primary colours; the colour of the plate being taken through a screen of similar tint, is the solution of the mystery." We are sorry to say anything which will relieve any of our American brothers of the idea that they are first in everything, but we must in justice to our country and ourselves

point out that Mr. Bligh Bond discovered that process some considerable time ago, and that a specimen of the result of it formed the frontispiece of the *Photographic Quarterly* for July. The *Photographic Globe* contains an excellent artotype in green of a road in the West Indies, the effect of which is charming.

The *Art Journal* for August is one of the most interesting we have seen. The frontispiece is a beautifully executed etching of the picture by P. Outin, "A Coming Shower." The picture is worth a little study and attention for amateur photographers, who will find several suggestions in it as to light and shade which they can carry out in their own work. There is an illustrated article on "Riverside Inns," giving sketches and descriptions of old-fashioned inns round about London. The other articles are also deserving perusal.

## Holiday Resorts and Photographic Haunts.

### A SUMMER HOLIDAY WITH A "FACILE."

By T. G. PARROTT.

HAVING recently taken up photography as an amusement, I decided to take a camera with me on my usual summer holiday. A Fallowfield's Facile was purchased, with R.R. lens; and, provided with six dozen ordinary Ilford plates and a folding red lamp, I left Harwich at 10 p.m. one night, and woke up to find Rotterdam in sight the following morning. During the day, although there was a great deal of rain, I managed to take several interesting views of barges on the canals, windmills, and quaint old houses. Early the next morning we started by steamer up the Rhine to Biebrich, a journey of three days. At the numerous villages where the boat touched, there were plenty of opportunities for securing views of Dutch and German village architecture; the weather, unfortunately, preventing any instantaneous work. At Cologne the railway bridge and some river views were taken, and during the journey through the romantic portion of the river from Bonn to Bingen, views of Coblenz, Ehrenbreitstein, Stolzenfels, and many other castles were obtained. From Biebrich we went to Wiesbaden, and from there to Heidelberg. The latter town presents many subjects for the camera; the two bridges over the Neckar, the Castle, and the picturesque front of the old Ritter Hotel were taken amongst others. From Heidelberg to Triberg was the next move, and here, in the centre of the Black Forest, several beautiful views were taken; the waterfall, the valleys round Triberg, and the quaint old wooden houses of peasants afforded many opportunities. From Triberg we went to Strassburg, thence to Metz, Brussels, Ghent, and Bruges; no shots were attempted at Strassburg or Metz, as the laws are strict as regards photographs or sketches of fortifications or fortified towns. The ancient city of Bruges required the expenditure of several plates; the celebrated belfry, the hotel de ville, and the old city gates were taken. From Bruges Ostend was reached, and here were expended the last few remaining plates, some rapid shots being taken of the vessels in harbour, and groups of passengers on board the Dover boat. With regard to the Customs officers, I found them on every occasion most anxious not to injure the plates by any exposure as soon as they knew what they were; examinations were made at Rotterdam, Emmerich, Luxembourg, and Dover.

I labelled both camera and plates boxes with warning notices in French and German. I found the changing of plates presented no difficulty; a commodious cupboard in the cabin of the Rhine steamer came in handy, and the hotel bedrooms at night could always be darkened. I used the red lamp once or twice, but generally preferred to do the changing in the dark. No plates were developed, but the exposed plates were repacked in the same boxes and in the same manner as the unexposed plates are sent out by the makers; this method has proved entirely satisfactory, no damage to the films resulting. The small extra trouble of carrying the camera and plates is well repaid by the pleasure which the possession of six dozen mementos of a pleasant holiday is calculated to give.

ANTWERP AND BRUSSELS.—The Secretary of the Hackney Phot. Soc. writes, "Van Neck, at Antwerp, speaks English very fairly. He has also a place at Brussels. At Dinant we changed and developed at M. Halle's, Grand Rue."



## Register of Dark-Rooms, 1890.

## "AMATEUR PHOTOGRAPHER" LIST OF DARK-ROOMS.

WE class them in four divisions, *i.e.*, *a* amateur, *d* dealer or professional, *h* hotel, and *s* photographic society.

In our letter of introduction full particulars are given as to owner, address, charges (if any); plates, chemicals, etc., kept by dealers; terms for temporary membership of societies; hotels; distance from station, etc., etc.

Every application for letter of introduction must be accompanied by SIX PENNY STAMPS. The owner of "Dark-Room" will be advised by same post as the applicant. The envelopes should bear the endorsement DARK-ROOMS.

NOTE.—Upon application information can be supplied respecting dark-rooms on the Continent, and addresses of many firms who stock photographic material.

<i>d</i> Aberdeen	<i>d, s</i> Crewe	<i>d</i> Jarrow	<i>d</i> Reading
<i>d</i> Aberystwith	<i>d</i> Crewkerne	<i>d</i> Jersey	<i>h</i> Redcar
<i>d</i> Addingham, Yorks.	<i>d</i> Croydon	<i>d, s</i> Keighley	<i>h</i> Redditch
<i>d</i> Amble, Northumberland	<i>a</i> Dalton-in-Furness	<i>a</i> Kendal	<i>d</i> Rhayader
<i>d</i> Andover, Hants	<i>d</i> Darlington	<i>a</i> Kimberley	<i>d</i> Richmond, Surrey
<i>a</i> Aylesbury, Bucks	<i>h</i> Dartmouth	<i>d</i> King's Lynn	<i>a</i> Ringwood, Hants
<i>d</i> Banff, N.B.	<i>d</i> Deal	<i>a</i> Kingstown, Dublin	<i>d</i> Rochdale
<i>d</i> Barmouth, N. Wales	<i>d</i> Derby	<i>d, h</i> Lancaster	<i>a</i> Rodley, near Leeds
<i>a</i> Barnsley	<i>a</i> Devizes	<i>d</i> Larne	<i>d</i> Romford
<i>d</i> Barnstaple	<i>h</i> Dingwall, N.B.	<i>d</i> Leamington	<i>d</i> Royston
<i>d, s</i> Bath	<i>a</i> Doncaster	<i>d</i> Lechlade	<i>d</i> Ryde, Isle of Wight
<i>h</i> Beaconsfield	<i>a, d, h</i> Douglas, Isle of Man	<i>h</i> Ledbury	<i>h</i> Ryde
<i>a</i> Bedford	<i>d</i> Dover	<i>a, d</i> Leeds	<i>a</i> St. Agnes
<i>d, s</i> Belfast	<i>d, h</i> Dublin	<i>a, d</i> Leicester	<i>d</i> St. Andrew's, N.B.
<i>s</i> Belfast	<i>h</i> Dunblane, N.B.	<i>a</i> Lenzie, N.B.	<i>h</i> St. Asaph
<i>d</i> Belper	<i>d, s</i> Dundee	<i>d</i> Leytonstone, Essex	<i>d</i> St. Bees
<i>d</i> Bexhill-on-Sea	<i>a</i> Dungarvan, co. Waterford	<i>d</i> Lincoln	<i>a</i> St. Helens
<i>d</i> Birchington-on-Sea	<i>a</i> Duns	<i>d, s</i> Liverpool	<i>d</i> St. Heliers
<i>a, d, s</i> Birmingham	<i>d</i> Durham	<i>d</i> Llandudno	<i>a</i> St. Ives, Hunts
<i>d</i> Blackburn, Lancs.	<i>d</i> East Molesey, Surrey	<i>d</i> Llandloes	<i>d</i> St. Leonards
<i>h</i> Bodiam	<i>h</i> Ebbw Vale	<i>d</i> London, Aldersgate, E.C.	<i>h</i> St. Mellons
<i>d</i> Bodmin	<i>d</i> Edinburgh	<i>a</i> Bloomsbury, W.C.	<i>h</i> St. Neots
<i>d</i> Bolton	<i>s</i> Egremont	<i>d</i> Borough, S.E.	<i>d</i> Sandgate
<i>h</i> Bonar Bridge	<i>h</i> Ennistymon, co. Clare	<i>d</i> Charterhouse Sq., E.C.	<i>d</i> Sandown, Isle of Wight
<i>h</i> Boro' Bridge, Yorks.	<i>a</i> Enfield Town	<i>a</i> Chelsea, S.W.	<i>a, d</i> Scarborough
<i>d</i> Bournemouth	<i>a, d</i> Evesham	<i>d</i> Fenchurch Street, E.C.	<i>h</i> Seddlescomb, near Battle
<i>d</i> Bradford	<i>d</i> Exeter	<i>d</i> Fleet Street, E.C.	<i>a</i> Shaftesbury
<i>d</i> Bramley, near Leeds	<i>s</i> Falkirk	<i>d</i> Gracechurch Street, E.C.	<i>d</i> Shanklin, Isle of Wight
<i>d, h</i> Brechin, N.B.	<i>d</i> Falmouth	<i>d</i> Highgate, N.	<i>h</i> Shepton Mallet
<i>h</i> Bridge, near Canterbury	<i>d</i> Faversham	<i>d</i> Kingsland, N.E.	<i>d</i> Shrewsbury
<i>d</i> Bridlington Quay	<i>d</i> Felixstowe	<i>d</i> London Bridge, S.E.	<i>h</i> Sleaford
<i>h</i> Brigg, Yorks.	<i>d</i> Finchley	<i>d</i> New Cross, S.E.	<i>d, h</i> Southampton
<i>d</i> Brighton, Hove	<i>h</i> Fochabers, N.B.	<i>d</i> Peckham, S.E.	<i>h</i> Southend-on-Sea
<i>d, h</i> Brighton	<i>d</i> Folkestone	<i>d</i> Walworth Road, S.E.	<i>a</i> Southport
<i>d</i> Bristol	<i>a</i> Four Ashes, near Stourbridge	<i>a</i> Long Eaton	<i>a, s</i> Southsea
<i>h</i> Broadway, Worcester	<i>a</i> Frodsham	<i>h</i> Long Melford	<i>a</i> Stamford
<i>d</i> Bromley, Kent	<i>a</i> Galashiels, N.B.	<i>d</i> Loughborough	<i>a</i> Steyning
<i>h</i> Brough, Westmoreland	<i>h</i> Giant's Causeway, Ireland	<i>a</i> Louth	<i>d</i> Stockton-on-Tees
<i>s</i> Burnley	<i>d, s</i> Glasgow	<i>a</i> Ludlow	<i>a</i> Stoke-on-Trent
<i>d</i> Burslem	<i>a</i> Glenalmond, N.B. (nr. Perth)	<i>d, h</i> Lynnmouth	<i>a</i> Stony Stratford
<i>a</i> Cadiz, Spain	<i>h</i> Glenarm, Belfast	<i>d</i> Lynn	<i>a, d</i> Stourbridge
<i>h</i> Callander, N.B.	<i>d</i> Gloucester	<i>a</i> Lythe, Whitby	<i>d, h</i> Stratford-on-Avon
<i>h</i> Camborne	<i>d</i> Gorleston	<i>h</i> Macroom, N.B., co. Cork	<i>d</i> Stroud
<i>d, h</i> Cambridge	<i>a</i> Goring	<i>d</i> Madeley, Salop	<i>h</i> Sudbury, Suffolck
<i>d</i> Carnarvon	<i>a</i> Gravesend	<i>d</i> Maidenhead	<i>d</i> Sunderland
<i>h</i> Capel-Curig, N. Wales	<i>d</i> Great Yarmouth	<i>a</i> Mainz, Germany	<i>h</i> Sutton Bridge
<i>a</i> Chalfont St. Peter, Mid.	<i>a</i> Halifax	<i>d</i> Manchester	<i>h</i> Sutton
<i>d</i> Cheltenham	<i>d</i> Handsworth	<i>h</i> Mallow, co. Cork	<i>d</i> Swindon
<i>d</i> Chepstow	<i>d</i> Hanley	<i>a</i> Malta	<i>d</i> Taunton
<i>d</i> Chesham	<i>d</i> Harrogate	<i>d</i> Malvern	<i>a</i> Tavistock
<i>d</i> Chester	<i>d, h</i> Hastings	<i>d</i> Mansfield	<i>a</i> Thornton Dale nr. Pickering
<i>a</i> Chesterfield	<i>s</i> Havant	<i>d</i> Margate	<i>h</i> Thorpe
<i>a</i> Chipping Sodbury	<i>d</i> Hereford	<i>h</i> Merthyr Tydfil	<i>h</i> Tintern Abbey
<i>a</i> Cinderford	<i>d</i> Hexham	<i>d</i> Merton	<i>d</i> Todmorden
<i>d, h</i> Cirencester	<i>h</i> Holbeach	<i>d</i> Middlesborough	<i>d</i> Torquay
<i>d</i> Clacton-on-Sea	<i>a, d</i> Hull	<i>d</i> Minehead	<i>h</i> Tring
<i>s</i> Cleckheaton	<i>d, h</i> Ilfracombe	<i>h</i> Monmouth	<i>d</i> Tunbridge Wells
<i>d</i> Clevedon	<i>d, s</i> Ipswich	<i>d</i> Montrose, N.B.	<i>a</i> Tynemouth
<i>d</i> Clifton		<i>a</i> Mountsorrel	<i>s</i> Uttoxeter
<i>a</i> Clitheroe		<i>a</i> Mumbles, near Swansea	<i>a</i> Ventnor
<i>d</i> Colchester		<i>d</i> Newark, Notts	<i>a</i> Vienna
<i>h</i> Colnbrook		<i>d</i> Newcastle-on-Tyne	<i>h</i> Wadebridge
<i>d</i> Colwyn Bay		<i>d</i> Newport (Mon.)	<i>d</i> Wakefield
<i>a</i> Coniston		<i>a</i> Newport, Pembroke	<i>h</i> Warwick
		<i>d</i> Niton, Isle of Wight	<i>a, d</i> Waterford
		<i>d</i> Norwich	<i>a</i> Wellington, Salop
		<i>d</i> Nottingham	<i>d, s</i> West Harilepool
		<i>a</i> Northallerton	<i>d</i> Weston-super-Mare
		<i>a</i> Oban	<i>h</i> Wetwang, York
		<i>s</i> Oldham	<i>d</i> Weymouth
		<i>a</i> Oxford	<i>d</i> Whitby
		<i>h</i> Paignton	<i>d</i> Wimbledon
		<i>h</i> Paisley, N.B.	<i>d, h</i> Windsor and Eton
		<i>d</i> Penrith	<i>d</i> Wisbech
		<i>d</i> Penzance	<i>a</i> Wolverhampton
		<i>d</i> Pershore	<i>a</i> Worcester
		<i>a</i> Perth	<i>d, h</i> Worthing
		<i>a</i> Poole	<i>a</i> Yarm
		<i>h</i> Port Erin, Isle of Man	<i>d</i> Yeovil
		<i>d</i> Preston	<i>a, d</i> York
		<i>h</i> Prince's Risboro'	<i>d</i> Youghal



## Notes from the Liverpool Centre.

(By our District Editor.)

MATTERS photographic in our centre are still rather tame so far as societies as a whole are concerned. Individually a lot of good, useful work is being done, principally, I gather, for the Liverpool (1891) Exhibition. Those gentlemen who have returned from their holidays, especially those who have come back during the past week, express themselves as highly satisfied with the results of their vacation shots. We are having lovely weather in the North just now.

It is satisfactory to know that the several gentlemen who participated in the Iceland jaunt have apparently done exceedingly well in the reproduction of the many features of interest they encountered in the course of their journey. Already a number of Iceland studies—exceptionally good, by-the-way—are attracting considerable attention in the Liverpool club-room. It would be ten thousand pities if the photographs of the trip were a failure; only those who did the round journey can estimate all that the expense and privation of the undertaking really meant. It requires men of moral courage to travel Iceland as the Lange photographic party travelled it.

At the monthly meeting of the Birkenhead Photographic Association last Thursday, the 14th inst., Mr. J. A. Forrest gave an interesting paper on a recent tour through Scotland. Mr. G. E. Thomson, in a letter, announced his willingness to take office as Vice-President of the Society. A special effort is being made to fill the Society's album which was won at Birmingham last year. Only the very best work of members, however, will be given a place in the collection.

Secretaries of Societies inform me that the coming session is likely to be a very busy one. Numerous and specially important lectures and demonstrations are arranged for. The week-end excursions are largely patronised.



A NEW WEEKLY is to make its appearance on the 30th inst., under the title "The Magazine and Book Review," its main object being to afford a means whereby every busy man and woman may keep in touch with all matters of interest in current literature. The paper will contain reviews and criticisms of the principal English, American, Continental, and Colonial magazines and books of the day, literary news and chit-chat, a tabulated list (as far as can be obtained) of the books published during the week, with names of authors and the subjects, the publishers, the size, price, description of binding, etc., and other articles of general interest.

MESSRS. PERCY LUND AND Co.—On Saturday, the 16th inst., the employés of Messrs. Percy Lund and Co., printers and photo-material dealers, of Bradford and London, held their wayzgoose at Morecambe. The party engaged a Pullman car, and arrived in Morecambe soon after nine. In the afternoon they assembled at the Summer Gardens, where tea was provided. Fifty-five sat down, after which the whole of the party were photographed by one of the firm's employés. A short programme of vocal and instrumental music and recitations was afterwards gone through. Brief speeches were made by Mr. Percy Lund; Mr. H. Snowden Ward, Manager of the photo-material department; Mr. Michael H. Piercy, Manager of the London office, and others.

MR. OSCAR MEYER, the New South Wales Commissioner at the International Mining Exhibition, London, has forwarded us a special edition of that portion of "The Year Book of Australia" devoted to "New South Wales," and containing a large amount of useful information concerning the colony, which is rapidly progressing in industrial and social prosperity. It contains an historical account of New South Wales, brought down to the latest date; an interesting description of the geographical and other features of the colony; papers on the growth of its trade; its mineral resources; and a copious account of its public buildings, etc. In addition there is a mass of matter relative to the various Government Departments, including some account of the railways of the colony. The pages devoted to information for tourists shows the colony to abound in picturesque features, the scenery of the Blue Mountains being among the grandest known, while the National Park—one of the largest in the world—near Sydney, consists principally of virgin forest.

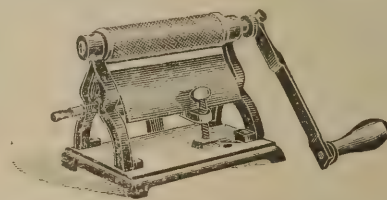
## Apparatus.

### NEW VIGNETTING SHAPE SERRATOR.

AMATEURS often desire to vignette pictures with a somewhat different outline to those provided for by the ordinary vignetting glasses, and hitherto have been compelled to serrate the edges of the card or paper with a penknife. The result is that in nine cases out of ten the thing is irregularly done, and the vignetting, in consequence, by no means what it should be. All this, however, can now be easily obviated by the use of the serrator patented by Mr. Goodall, and supplied by Marion and Co., which cuts clean and regular pieces out of the card, and can, of course, be used to serrate any shape or form of aperture. There is likely to be a big call for these handy little instruments, which look like a small pair of pliers, and easily go into the pocket.

### SUTCLIFFE'S BURNISHER.

Mr. Sutcliffe has recently put a burnisher on the market which is all that can be desired both in the finish of the article and the work which it does. It is strongly made, has a milled steel roller which will entirely prevent any slip on the back of the cards



and the bar, which is very carefully polished, is of peculiar construction, absolutely precluding the possibility of bending, and quickly and effectively heated by either gas or oil. The pressure is easily regulated by one thumb-screw, and altogether the machine is calculated to fulfil the necessities of a burnisher which should be "all that an amateur can desire."

### THE "TALMER" HAND-CAMERA.

THE examination of this little camera, made by Messrs. Talbot and Eamer, Blackburn, has given us great pleasure, and we unhesitatingly say that it is the best in the market at anything like the price. In appearance it is a well-finished but unobtrusive box of polished mahogany, 9 ins. long by  $4\frac{1}{2}$  ins. by  $4\frac{1}{2}$  ins. It is, however, supplied in blackened wood if desired, and there is nothing to prevent the purchaser covering it with either American cloth or brown paper, except the expenditure of a little trouble. The lens is a well-made rapid single achromatic combination, with which every object beyond five yards is in focus; it works at  $f/11$ , and covers the whole of the plate, with clear definition, to the edges. The back focus is  $4\frac{1}{2}$  ins., which will give a good depth in the resulting picture. The shutter is a duplex one, so that in setting it the lens is not uncovered for an instant, and the question of time or instantaneous exposure is settled by the shifting of a small lever the eighth of an inch. For charging the camera the top of the box is raised and the enclosed changing-bag taken out after turning the two brass buttons which secure it in position, and twelve of Samuel's patent sheaths can then be taken out of the receptacle, loaded, and put back with the greatest ease in a few minutes. An exposure having been made the lifter at the side of the camera is raised, and that lifts the plate into the changing-bag, which, being of velvet instead of leather, makes the grasping of the plate easy, when it is seized by the thumb and forefinger, and thrust down a slot at the back. Velvet being used for the bag, and the sheaths containing the plates, it is practically impossible to scratch them, and the trouble of the operation is reduced to almost nil. There is one other point which must not be forgotten, namely, that inside the top of the box which is raised for the purpose of changing plates there is an ivory tablet, ruled and numbered, on which notes of each exposure can be made for transference to the exposure book on reaching home. An excellent finder is attached. The price is exceedingly reasonable, only 45s., and though it is rather late for shutter-work, in view of the weather we are having, we cannot do less than heartily recommend the camera to our readers.



## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**HACKNEY PHOT. SOC.**—Mr. Robert Beckett gave a very instructive paper on "Intensifying, Reduction, and Varnishing," on the 14th inst., Dr. Roland Smith presiding. His formula for intensifying was: mercuric chloride,  $\frac{1}{4}$  oz.; hot water, 1 pint; hydrochloric acid, 60 minims. He said the great thing was to give plenty of washing to the negatives. For blackening, etc., used a 15 per cent. solution of ammonia, but if denser negatives were required, he advised sulphite of soda. He had been very successful in intensifying under-exposed plates. For reduction he used Mr. Farmer's formula, a 5 per cent. solution of red prussiate potash. For local reduction Mr. Beckett advised methylated spirit. He then varnished a negative, preferring to demonstrate, which he did very successfully. Mr. Poulson showed the Quadrant hand-camera, which is very simple and compact. At the monthly excursion to Carshalton, under the guidance of Mr. W. L. Barker, a good muster was held, and successful exposures were made.

**HOLBORN CAMERA CLUB.**—On the 15th inst. about 25 members assembled at the Club Room, when Mr. Benest read a paper on "Exposure." Watkins' exposure meter was also passed round and examined. On Saturday eight members visited Chingford.

**NORTH KENT AM. PHOT. SOC.**—A meeting of this Society took place on Thursday, August 14th, Mr. T. C. Johnson, J.P., President, in the chair. The engagement of the evening was the exhibition of the American set of prints and slides, "The White Mountains." They were heartily appreciated, and a vote of thanks was passed to the Boston Camera Club for preparing the set. It was thought that they were better than last year's slides, both in subject and technique.

**NORTH MIDDLESEX PHOTOGRAPHIC CLUB.**—The ordinary meeting was held on the 11th inst., Mr. Paul in the chair, when a discussion took place on the changing apparatus in various hand-cameras.

**MANCHESTER AM. PHOT. SOC.**—At the monthly meeting of this Society held at the Athenæum on the 12th inst., Messrs. Krayer and Suthers were elected members. There were exhibited specimens of the new "Kallotype" printing process, a walking-stick tripod stand for hand-camera, and some fine photographs illustrative of the Society's rambles to Gawsworth, Goyt Valley, and Bollin Valley. With reference to Goyt Valley, Mr. Kidson Taylor, a member of the Society, has been fortunate enough to secure the AMATEUR PHOTOGRAPHER Silver Medal for one of his pictures in the Goyt Valley. Mr. G. Wheeler read a paper on the "Introduction of Clouds in Bromide Prints," and gave a very successful demonstration of printing with Dr. Jumeaux's eikonogen solution. He painted clouds on the backs of two negatives before the audience, using Payne's grey for this purpose, and by the aid of an ordinary wax candle made the necessary exposures on bromide paper. He then developed the image, producing two well-graded pictures with suitable skies within ten minutes. The result was received with applause. Mr. Wheeler passed round a number of views, some taken in Holland, and others local, to show the improvements which might be effected by his method of working. He recommended real skies, obtained at the same time as the landscape, as preferable

to any others, but as this was not always possible the next best plan was to add them with the semi-transparent colour he used, at the back of the negatives. A very small quantity of pyro should be used in developing the negative so as to obtain a thin negative with full details. The introduction of painted clouds must be done judiciously. It was not sufficient to put a few dabs of colour anywhere; something like a reproduction of natural appearances must be attempted. The lighting of cumulus clouds must harmonise with the scene, and the aerial perspective should be built up correctly. Margin-lit, nimbus, and other forms and effects could be introduced, if done with care. Reds, yellows, and other non-actinic colours were not suitable for painting.

**SHEFFIELD PHOT. SOC.**—The usual monthly meeting of the above society was held at the Masonic Hall, Surrey Street, on the 12th inst., Mr. B. J. Taylor in the chair. After the routine business had been concluded, the award of Messrs. Geo. Davison and Lyonel Clark, the judges in the recent competition—subject, "A Genre Study"—was made known, the result being that the President, Mr. B. J. Taylor, was declared the winner. No other picture was deemed of sufficient merit to receive a second prize.

**SOUTH LONDON PHOT. SOC.** (late East Dulwich and Peckham).—The usual bi-monthly meeting of this Society was held at 76, Peckham Rye, on the 15th inst., the President in the chair. Mr. Farrant was elected a member. A number of specimens of the work done by those members who availed themselves of the permission to photograph the castle and grounds at Arundel, on the last Bank Holiday, were shown, the results being excellent. At the close of the ordinary business the meeting was declared a special meeting, to take into consideration a proposed change in the title of the Society. On the motion of the President, it was unanimously resolved that the Society in future be called "The South London Photographic Society." On and after the first meeting in October (October 3rd) the place of meeting will be removed to Hanover Hall, Hanover Park, Rye Lane, S.E., the success the Society has already met with necessitating more space for their meetings. The Committee think themselves fortunate in securing Hanover Hall, it being within three minutes' walk of tram and the same distance from Peckham Rye station on the London, Chatham, and Dover and London, Brighton, and South Coast Railways.

**STAFF. POTTERIES AM. PHOT. SOC.**—At the monthly meeting, held on the 12th inst., a set of "AMATEUR PHOTOGRAPHER Prize Pictures" was exhibited and freely criticised. There was a very good attendance, although many of the members are at present away for their holidays.

**STOCKPORT PHOT. SOC.**—The monthly meeting was held on the 13th inst. at the Mechanics' Institution, Mr. W. Banks, Vice-President, in the chair. After the election of new members, the report of the ramble to Haddon Hall was read. There were fifteen excursionists, 130 plates being exposed. Mr. H. Cooper exhibited a Hawk-eye hand-camera, a Blair camera and stand, a first-class set of lenses by Taylor, Taylor, and Hobson, and the French L'Automatique shutter, all of which were admired.

**TUNBRIDGE WELLS AM. PHOT. ASSOC.**—The members of the above Association visited Buckhurst Park, the seat of the Earl de la Warr, on Saturday, the 16th inst. The afternoon turned out fine, though the wind prevented plates being exposed on anything but the mansion. This is of the Tudor style, very handsome, and was formerly known as Stoneland; it has been added to considerably by the present Earl, and stands in a very extensive park, which contains many noble beeches and other trees, perhaps some of the finest in the country, and has a fine

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Cornwall Polytechnic Soc: ... ..	Falmouth.	Aug. 26.	—	{ E. Kitto, Observatory, Falmouth. W. Brooks, Laurel Villa, Reigate.
Phot. Soc. of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
Edinburgh Phot. Soc.: ... ..	Manchester.	Sept. —.	Jan. (1891).	C. G. Virgo, Art Gallery, Manchester.
Phot. Soc. of India ... ..	Edinburgh.	Nov. 14.	Jan. 7 (1891).	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
...	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Liverpool Am. Phot. Assoc.: ... ..	Liverpool.	Mar. 6 (91).	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.

\* English and European exhibits should be despatched not later than Oct. 1st.



sheet of water about seventeen acres in extent. The wind still continuing very rough, a move was made to Old Buckhurst. The original Norman owners of the estate were the De Denes, an heiress of that name, Ella de Dene, in the reign of Richard the First, carried Buckhurst in marriage to Sir Jordan de Sackville. A solitary tower and gateway remain to indicate the style of the house, and a ground plan of the whole, by John Thorpe, is preserved among a collection of drawings, by which the extent and arrangement may be understood. It appears from this to have been a large square mansion covering an area of about 250 by 200 feet, and was placed at the edge of a steep hill having a moat with a drawbridge, and a broad terrace on one side. In front was the tower gateway with lodging for porter, and on each side were several apartments for noblemen's lodgings, with galleries over them, one side being appropriated for "my lord," and the other side for "my lady." The whole surrounded a square court, and there were other square courts. At the four corners were staircase towers, and square bay windows projected from the walls. Horace Walpole, who saw the old place, pronounced it an immense pile, the ancient hall being 55 feet long and 40 wide, the tennis court also being 55 feet long, and several apartments were in proportion. Buckhurst attained its zenith and decline in the time of the first Earl of Dorset, Lord Treasurer to Queen Elizabeth, who, according to Camden, being equally eminent for prudence and nobility, found it incompatible with his public duties to travel so far from London as twenty-eight miles through "fowle ways," and therefore obtained from his royal mistress a grant of Knowle in Kent. Buckhurst then became deserted, the house was taken down and its material conveyed to East Grinstead, where a college was built by Richard, third Earl of Dorset. After some plates were exposed on the solitary tower and surroundings, a move was made for the church dedicated to St. Michael, which was rebuilt soon after the old one was destroyed by lightning in 1663. The font is dated 1666, and the date on the porch is 1672.

WEST SURREY AM: PHOT: SOC:—A meeting was held at Crichton Hall, Clapham Junction, on the 13th inst., at 8.30 p.m., for the purpose of presenting J. Watkinson, who has just resigned the post of Hon. Sec. to the Society, with an optical lantern, as a slight recognition of the service he has rendered the Society. Mr. G. Davison presided, and, after an appropriate speech, presented the gift. Several new books were presented to the library. The prize photographs of the AMATEUR PHOTO-

GRAPHER "Travelling Studentship Competition" were kindly lent by the Editor of that paper, and were much admired. The next meeting will be held on September 3rd, when Mr. Swingler will read a paper on "Hand-Cameras."

WOLVERHAMPTON AM: PHOT: SOC:—At the monthly meeting of the above Society, held on the 12th inst., a paper was read by the Hon. Sec. (Mr. J. W. Evans) on the "Platinotype Process." After a description of the different methods of platinum printing, with various hints and instructions, a demonstration of the working of the paper, both by the floating and brush method was given. Mr. Evans also handed round a number of finished prints, including some fine studies from Lichfield Cathedral, and Mr. Derrinton showed some good stereoscopic negatives.

WOOLWICH AND DISTRICT PHOT: SOC:—The monthly indoor meeting was held in the Freemasons' Hall, on the 13th inst., Mr. Kemp in the chair. Mr. Harris read a short financial report, showing that this Society, starting in May last with five members, now numbers thirty-five, and that at the end of the summer season all expenses will be cleared. Mr. Aspinall then gave his paper on "The Old Wet-Plate Process," fully illustrating the operations by actually making a plate in full view of the members. He then drew attention to the superiority of the dry-plate process of the day, both as regards lasting sensitiveness of the plates and cleanliness. Negatives were handed round fully exemplifying Mr. Aspinall's skill in handling either process. The prints of the Eltham meeting, taken by Mr. Hall, were rapidly disposed of among the members. Mr. Calder's 12 by 10 of the "Clown Cricketers," taken on Plumstead Common, was much admired, and the prints pronounced admirable. Indoor meeting, Woolwich, September 10th.

OURSELVES.—Mr. E. Kitto, Secretary of the Royal Cornwall Polytechnic Society, writes us, "You have been good enough to send me a copy of your publication for some months, a compliment which I highly appreciate. I do not fail to recommend your paper to any friend interested in photography."

"THE MODERN PRACTICE OF RETOUCHING NEGATIVES" (Scovill's Photographic Series) is a neatly got up handbook dealing with the apparatus and processes of retouching collodion and dry-plate negatives, positives, enlargements, and landscapes, on the method practised by M. Piquépé, and there is a special chapter dealing with the German method.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4085. **Abbeys, Photographing.**—Will some kind reader inform me if amateurs are allowed to photograph in and out of the following abbeys:—Melrose, Dryburgh, Jedburgh, and Kelso?—F. LINTON.

4086. **Malta.**—Can any reader inform me whether half-plates can be purchased at Malta? If so, what makers, and at what cost over English prices?—MAJOR.

4087. **Wexford.**—I should be glad to know any particulars of the above place, as to places of interest near Wexford, and if plates can be purchased

there? Reply by letter preferred; address with Editor.—W. A. J. CROKE.

4088. **Laverne's Detective Lens.**—I shall be glad of any information respecting this lens. What is its equivalent focus, full aperture, and angle of view? Will it cover 5 by 4 sharply, and is it a rectilinear lens? Will some kind reader who has a photograph taken with this lens in a detective camera lend me a copy for inspection? Will return next day, paying postage both ways. Address with Editor.—ORDNANCE.

4089. **Varnish.**—Wanted, the best formula for amber varnish.—G. B.

4090. **Wonderful Light.**—Can anyone inform me if it is possible to obtain some wick *re* the "wonderful light," mentioned in several photographic papers?—G. B.

4091. **Clearing Gelatino Chloride Prints.**—How can I clear the whites of some gelatino chloride prints that have become yellow after toning, etc.?—G. B.

4092. **Flash-Light Paper.**—Where can I obtain flash-light papers? Are they any good?—G. B.

4093. **Reducing Fog.**—Wanted, the last formula for reducing fog in negatives, and say whether it reduces the negative or not? I should prefer it not to reduce the negative.—G. B.

4094. **Yellow Stain on Negative.**—Which is the best way to remove yellowish stain on negative, presumably pyro?—BRETNAV.

4095. **Instantaneous and Time Shutter.**—Can anyone recommend me a good and cheap instantaneous and time shutter?—G. B.

4096. **Indestructible Asbestos.**—If anyone has tried the indestructible asbestos wick, will they kindly inform me if it is useful for dark-room lamps, and where I can obtain it?—G. B.

4097. **Lens.**—Can any reader inform me if Perken, Son, and Rayment rapid Eurycope lens is suitable for instantaneous work, and what proportions of developer (pyro) should be used to develop a negative taken with same?—AMATEUR.

4098. **Watkins' Exposure Meter.**—Will any amateur oblige me with the results of his experience of this instrument? I can only expose at rare intervals, and lose a lot of plates before I "get my eye in."—ALTIORA PETO.

4099. **Backing Plates.**—Wanted, a tried method

of backing plates for hand-camera without sheaths or partitions, quick drying, and easily removed, and free from holes, dust, and grit?—ALTIORA PETO.

4100. **Masks.**—Where can I get that soft black paper used for lantern-slide masks?—W. J. BROWNE.

4101. **Lantern Slides.**—I have got some half-plate negatives from which I want to take some lantern slides. I have only got an 1888 Instantograph and two lanterns, with  $\frac{3}{4}$  in. condenser, with which to work. As I have not been a reader very long, I have not read much upon the subject. Will some reader help me?—NRETNAL.

4102. **Removing Varnish.**—How to remove varnish from negative, so as to intensify?—A. H. S.

4103. **Positives on Glass.**—Would anyone kindly give me instructions for making positives on glass? Can they be made from an ordinary negative?—J. WOMBWELL.

4104. **Yevers' Paper.**—Will some amateur photographer be so kind as to give information as to a new paper for printing out by Mr. C. C. Yevers, of Leeds, which it is said gives prints similar to those of platinotype?—AULD REEKIE.

4105. **Toning Matt-Paper.**—How is Scholzig's matt-surface paper to be toned? I have tried the method given in answer to query No. 3977, and the result is not satisfactory. From my negative I get a very flat picture.—IRIX.

4106. **Complete Outfit.**—Where can I obtain the necessary materials for a complete outfit and accessories for photographic studio work?—PATTI.

## QUERIES UNANSWERED.

July 4th.—Nos. 3953, 3967, 3968, 3969, 3973.

11th.—Nos. 3974, 3975, 3976, 3978, 3979, 3983, 3987, 3989, 3991, 3992, 3994, 3995, 3997.

18th.—Nos. 4003, 4004, 4007, 4009, 4013, 4016, 4017, 4020, 4021, 4024, 4025, 4026, 4027, 4029.

25th.—Nos. 4031, 4036, 4037, 4042, 4045, 4046.

Aug. 1st.—Nos. 4048, 4052, 4054, 4055.

8th.—Nos. 4057, 4061, 4063, 4065, 4066, 4068, 4070.

15th.—Nos. 4071, 4074, 4076, 4080, 4083, 4084.



## ANSWERS.

4005. **Horseback, a Cariera on.**—I have just bought a camera that I think will suit "E. S. O." admirably. It carries sixteen quarter-plates which require neither sheaths nor backing of any kind. These can be used for instantaneous exposures in the hand, or upon the tripod by focussing as an ordinary quarter-plate camera. The focussing is effected through an aperture in the back of camera, and the screen is worked by screw arrangement. Lenses from 4 to 6 1/2 inch focus can be used; it is fitted with a Kershaw's shutter, view finder, registers for plates, and fixing focus. The case is made of mahogany and ebonised. The pinion head is the only projection outside; most rigid in every part, no faddy movements to get out of order, and the most practical camera I have ever seen. The maker and patentee is Roberts, and the price is £3 3s.—G. D. REDDICH.

4072. **Aristotype Paper.**—Get Fallowfield's toning bath for Aristotype paper, which will tone in ten minutes instead of four hours, and requires no hypo. Squeegee on papier-maché board for gloss surface.—F. C. A.

4073. **Aristotype Paper, Liesegang's.**—See letter in this week's AMATEUR PHOTOGRAPHER. It might help you; try it.—A. H.

4073. **Scarborough.**—You will find plenty of "bits" round about Scarborough. Hackness, Forge Valley, etc., are all worth visiting. Whitfield, chemist, Westborough, keeps plates and materials in stock, and will give you every information as to district.—HYDRO.

4073. **Scarborough.**—In reply to "Five by Four," Scarborough offers every facility, not only as the so-called queen of watering places, but as abounding in picturesque spots. If "Five by Four" can bring his mind to leave the never-ending occupation of seeing and being seen on the Spa, and first take himself towards the north shore, he can call at the Castle, where he should take three pictures—(1) the entrance gate, (2) the buildings from the yard, and (3) the old ruined part, down the hill close to the tide; and if he will send me a print of No. 3 I shall be obliged, as it has an historical interest, being where George Fox, the first Quaker, was confined. Near the Castle there is a fine church, of which I do not remember the name, that makes a good picture, and along the shore to Scalby Mills are some very fine points of view—Forge Valley, Oliver's Mount, and Seamer are within easy distances, and the gardens near the Valley Bridge are worth some good plates. Boatmen, horses, ponies, and donkeys are numerous on the sands, and can be utilised, and the children's services, which are frequently held, make a good picture. Do not only go with the crowd, and then you will find much that will make good plates; but if you are like the writer, frequently one of the crowd, remember everyone you come in contact with you may learn something from.—T. BAKER.

4075. **Enlarging or Reducing.**—You evidently do not understand the tables. You cannot enlarge 4 1/2 by 3 1/2 to 12 by 10 exactly. You can get 12 1/2 by 9 1/2 exactly, or 12 1/2 by 9 or 13 by 10 very nearly. The first of these is the simplest. For this purpose you must place the sensitive surface at a distance from the lens centre equal to four times its focal length, and the negative to be enlarged at a distance from the lens centre equal to one-third part of this. Thus, if you use a 6 in. lens, these distances are 24 and 8 ins. respectively.—CLIFFORD E. F. NASH.

4077. **Exposure.**—Between 5 and 10 secs., according to the light. You cannot take well after 6 p.m. unless unusually fine.—BROCKLEY ROAD.

4077. **Exposure.**—I do not know how your stops are arranged, so cannot tell the size of your fourth stop. For portraiture always use the largest possible stop that gives good definition; the largest stop is generally f/8. Under the circumstances, from 2 to 3 secs. would be sufficient. I should advise your taking two negatives, giving one 2 and the other 4 secs. A little experience will not hurt you.—W. A. J. CROKE.

4078. **Whole-Plate Lens.**—Would strongly advise you to get an Optimus. These are considered the finest in the market, price £4 2s. 6d., whole-plate size. Don't buy a second-hand lens unless you are a judge of lenses. Some are dear at any price.—W. A. JACKSON.

4078. **Whole Plate Lens.**—The price of Lancaster's wide angle Rectigraph lens is 50s., and the Silver ring Rectigraph is 80s. Certainly, buy of the makers, as they will put anything right for you, which the second-hand man will not.—BROCKLEY ROAD.

4079. **Enamelling Aristo Prints.**—Try mode recommended in letter on "Aristotype Paper" in this week's AMATEUR PHOTOGRAPHER. The prints are more liable to stick in warm weather or a hot room than in the cold; in fact, they cannot be finished in too cool a place.—A. H.

4079. **Enamelling Aristotype Prints.**—You go a very roundabout way to attain a very easy object; put prints straight into toning bath from printing frame. They should tone in ten minutes; wash, and squeegee on to papier-maché board, and they will strip off very easily when dry.—F. C. A.

4079. **Enamelling Aristo Prints.**—If "Lauret"

will attend to following he will have no more trouble with above: Get an old negative glass, and thoroughly clean it in good soap-wash, polish with chamols leather, then dust very finely with French chalk, take a piece of cotton-wool and rub very lightly until the chalk is scarcely visible, then wash well under tap, leave a pool of water on the plate, and lay down flat, and put your print in position and squeegee (if the prints have been dried they must remain at least fifteen minutes in water before enamelling); leave to dry, then lift up one corner of print with pen-knife, and the print will pull off without any trouble. Omit bees-wax and turpentine; not necessary.—C. NAYLOR.

4081. **Rivot's Paper.**—Have tried Rivot's paper, taking care to get a sample print with my order, and at first it appeared to turn out a great failure; but adopting the plan of keeping on trying, and examining sample print to see if the fault was not mine instead of the manufacturer's, my experience has proved it works well, if printed slowly, but if put in the sun is not a success. I wonder what the experience of others is.—T. BAKER.

4082. **Intensifying.**—The fault lies in insufficient washing after fixing. Always wash extra well, so as quite to eliminate all hypo before intensification.—W. A. J. CROKE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED : AM : PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

A. W. GOTTLEB.—Thank you very much; we hope many will follow your example.

F. G. READER.—MS. to hand, for which many thanks. At present we cannot illustrate such articles.

A. J. S.—Will be inserted in due course.

A. MUNYARD.—Thank you for MS., which will be used in due course.

A. H. M. GREENHILL.—We should be quite pleased to do so.

E. A. P.—Use the 10 per cent. solutions.

PATRI.—You can buy brass fittings, etc., for camera if you intend making one yourself. On receipt of your reply we will send you name and address of one or two firms who supply the articles.

C. DAVIS.—Your prints should be a little darker before toning. Try chloride of gold, 1 gr.; bicarbonate of soda, 30 grs.; distilled water, 10 ozs.

EDITH A. CARTY.—It is impossible to say absolutely the cause of the spots; we can only conjecture that they are due to faulty mixing of the developer.

G. D. R.—Shall be very pleased to see the camera. Monday, the 25th, will be convenient, from two to five.

D. JOHNSTON.—Received 2s. 6d. for hospital albums.

NEMO.—We are sending you addresses by post. An excellent account of places to photograph in and around Edinburgh may be found in the AMATEUR PHOTOGRAPHER, vol. x., page 207, contributed under the heading "Holiday Resorts and Photographic Haunts," by Mr. J. Walker.

G. E. H.—No good purpose could be served by publishing your letter.

PLAZA TORO.—Have written to you.

URETUAL.—Your work leaves plenty of room for improvement. No. 1 is badly focussed; the figures are all huddled together. No. 2: Such a subject should be sharp; yours is not. Nos. 3, 4, and 5: The best is 5, but you have too strong a top-light. No. 6: The hand is fearfully distorted, and is very badly placed. No. 7: A bad print from a fogged negative. Nos. 8, 9, 10, and 11 are much better; the figure is well lighted and fairly printed. No. 12: Bad is the test. No. 13: This photograph shows that you did not use the swing back. All the small prints are bad. You had better study carefully some elementary hand-book, and let us see, say, three prints in six months' time, not twenty.

GEO. J. JONES.—Nothing will improve your negatives. In Nos. 1 and 2 the camera has been shaken. No. 3 is really dreadful; you did not even trouble to get the church on the plate, and so have out of the belfry. No. 4 is the best. You can do nothing with such negatives. Read up "Experimental Photography" (Leaper) or "Photography for All" (Harrison), and learn how to expose a negative. Mix your developer exactly in accordance with formula, develop slowly, fix and wash thoroughly, take care that the negative is dry before printing, mix your

toning bath according to any recognised formula, and above all see that all your measures, scales, etc., are perfectly clean.

YELLOW OCHRE.—A is an excellent camera. If you call upon us we will show you it and others—Mondays 2 to 5; Thursdays 10 to 1. We cannot really answer all your queries in this column. Certainly better than B. C is a good camera, but not of the "Magazine" type. D: Whoever told you this camera was the worst knew little about photography. E is well made, but of the old type, necessitating the insertion of a dark-slide. X is a good all-round camera. The choice of lens depends entirely upon what to use it for. Perhaps you will call.

TYRO.—We consider the print you send uncommonly good, from a negative taken with so cheap a lens. Why not try a single lens if you have a long-focus camera? The same firm will supply you with one. We do not think you can expect to secure much more than you have done.

ALTORA PETO.—We should advise B.

W. J. BROWNE.—The conditions will be revised. Our awards are always upon quality, and not quantity. We insert the query about paper masks. You shall have some prints for the 29th prox. That notice in the "local" has proved too great a temptation for us to answer in the curt journalistic terms, "Entirely contrary to regulations."

J. J. TREMEER.—We fail to see the point. "Caught" may have visited Barnstable, but if he did he was not to know that the price of plates of a certain brand would be increased 50 per cent. at Ilfracombe. Many thanks for your list.

IRIX.—All the lenses turned out by the firm can thoroughly be relied upon. They are cheap, but do really wonderful work, and their cameras are well worth the money asked for them. Send us a line, and we will try and keep any appointment you may make. Glad to hear of "a revolution in one department of the science."

T. H. LENNOX.—We should have no hesitation in advising you to purchase the lens, and feel very sure that it will cover the plate 7 1/2 by 5.

G. H.—Your experiments have been made with a very poor negative, and even at that you have, in our opinion, got more out of the negative when using the green glass than when printing through the negative in the usual way. Print deeper.

P. H. SANDERS.—Many thanks for your appreciative remarks upon the AMATEUR PHOTOGRAPHER list of "Dark Rooms." We have reason to believe that it supplies a want. You will see references to Edinburgh in our reply to "Nemo," in previous column.

R. SAYBOURNE.—The book referred to is published at 118, Rue d'Assas, Paris. We should think it very unlikely that the stains could be taken out.

JACK.—We are of opinion that the design has been produced by lithography, and the paper afterwards varnished. We have not sufficient practical knowledge of the printing of wall papers to give you any further particulars, neither can we give the title of any book upon the subject. Would it not be better to write to a technical journal? The editor of *The Papermakers' Record* might help you.

J. A. STANDING.—(a) We should recommend for plates, 2, 6, 5, 4. We have never used 3. 1 has been very successful as a cheap plate. (b) Use the developer given by the maker; if you want to use eikonogen, ask them for a formula. (c) Bi-chloride of mercury and ammonia. (d) Depends upon lighting. 1. f/16, 2. f/8. (e) We prefer the latter process. (f) Ga; if you have good ventilation.

DOOTSEA.—Will look the print up, and write to you.

BROCKLEY ROAD.—We do not understand your question re soda developer. Do you want a formula for common washing soda developer? The following is the formula for toning bath you require:—

Platinum bi-chloride ... .. 15 grs.  
Bi-carbonate of soda ... .. 15 "  
Distilled water ... .. 15 ozs.

Print deeply, and add at time of using one or two drops of nitric acid.

JOHN WHITFIELD.—Thank you; glad to see you are not caught yet. May we keep the letter? It may be useful later on.

H. SNOWDEN WARD.—Your two communications noted. With regard to the first, it will, we think, be quite understood that the article was original; and in reply to the second, we insert paragraph with pleasure.

T. G. PARROTT.—Very much obliged. The "short account" is inserted.

LEWON.—(1) Certainly. (2) Such being the case the lens is faulty. (3) Let the firm take a photograph with your lens, and show you that it covers a 5 by 4 plate. The lens should certainly give you a picture sharp to the edge of the plate. Will you send it to us, giving full particulars of maker's name, price, etc.

DON.—All the plates you name are reliable. We place them 8, 2, 5, 4, 6, and the 1, of course stand by themselves, and are very good.

CANTAB.—Try methylated spirits on a tuft of wool.

R. H.—We think not; the nearest approach to it is the Model camera, which is advertised in the AMATEUR PHOTOGRAPHER.



## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**"Amateur Photographer."**—AMATEUR PHOTOGRAPHER, 94 consecutive numbers to date, clean; what offers?—Howard, Cemetery Road, Rotherham. AMATEUR PHOTOGRAPHER, numbers 135 to 189, 182 to 195, 222 to 305; what offers, cash or exchange?—W. Cooper, 258, Hackney Road, London.

**Backgrounds.**—Backgrounds, two interior and exterior; 10s. each.—Staker, 10, Montpelier Street, Walworth, London.

**Background, etc.**—Background, seascape, 8 by 8—Marion's Academy, cost £3 10s., studio stand, archi, median screw, cost £4; what offers? or exchange for good half-plate camera and backs.—No. 73, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London, E.C.

**Cameras, etc.**—3½ by 3½ mahogany camera, lens, three slides, carrying 12 plates; imitation stone pillar, and 7 by 5 exterior background; 22s. 6d. lot.—F. Sights, East Cotingwith, York.

Rayment's patent whole-plate camera every movement, three double backs, solid leather case; cost £10; price £6; perfect condition.—Fletcher, Teviot Villa, Caterham, Surrey.

Quarter-plate Instantograph 1886, two double backs, all complete in canvas case, with stand; 30s.; or what offers?—Hy. Thompson, Guns Lane, West Bromwich.

Park's Victoria camera, full plate, three double backs, Wray's R.R. lens, solid leather case and lock, in first-class condition; £9, or would exchange for good magic lantern and cash.—Apply, Sayer, Irlam, Manchester.

**Hand Cameras.**—Splendid Wellington detective; £8; cost £12; seldom used for want of opportunity.—No. 8, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London, E.C.

**Hand Cameras, etc.**—Kodak camera, No. 1, with half spool of transparent film, in perfect order; 50s.—Harvey Preen, Chartered Accountant, 17, St. Helen's Place, E.C.

Marion's Parcel detective camera, with six light-tight bags, good as new; cost £1 17s. 6d.; what cash offers?—John Freston, Granville House, Hinkley.

Shew's 5 by 4 Eclipse, three double backs, camera rest, all new; £5 12s.; letters only.—K., 319, Strand, London.

**"History of England" etc.**—Will exchange first twenty-four 2s. numbers "History of England" (by Hume, Smollett, etc.) for photographic sundries.—Gardiner, English Street, Downpatrick, Ireland.

**Lanterns, etc.**—Pair Hughes' best Pamphengos lanterns, in polished case; cost £14; perfect; price £8 10s., or singly. Forrest's due-ratio photographic shutter, fit 2½ in. hood; price 7s. 6d.—Thelwell, Sledmere, York.

**Lenses.**—Optimus 2B portrait lens, fitted with Marshall's patent shutter, little used, good as new; cost £7; will take £4 10s.; deposit; approval.—No. 45, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London, E.C.

Optimus rapid rectilinear, 7 by 5, new, perfect condition; or red at £2; deposit, AMATEUR PHOTOGRAPHER Office.—Apply to J. Hunter, Sea View, Buncrana, near Londonderry.

**Lenses, etc.**—Sunder's applanat B No. 3 9 by 7 view, complete, in leather case, good condition, price £4 18s.; also brown waterproof canvas case, 14 by 12 by 3, quite new, 7s. 6d.—W. Clare, Ledbury.

Wray's 6 by 5 N.A.L. lens, ditto W.A.R., 7 in. focus, covers to 10 by 8 perfectly, both nearly new, Thornton-Pickard time and instantaneous shutter, 2½ hood, nearly new.—Best offers to Appleton, South Stockton.

**Sets.**—Lancaster's quarter Instantograph, complete, one extra dark-slide, 40s.; Optimus 5 by 4 rapid rectilinear lens, 29s.; exchange the lot for half-plate Instantograph 1889.—Greenhill, Cross Street, Woolwich, Kent.

Lancaster's 1890 half-plate Instantograph camera, dark-slide, tripod, fitted with rapid rectilinear f/8 lens; cost 105s.; as new; bargain, 74s.—John Slade, Slad Road, Stroud.

Ticket of half-plate outfit, pledged for £3, camera, lens, three backs, stand, case, etc., for sale; what offers?—No. 64, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London, E.C.

Lancaster's half-plate camera, three double backs, landscape lens, shutter, and tripod; 40s.—Campbell, 61, Castlereagh Road, Belfast.

Best complete outfit, 7½ by 5 camera (by Meagher), with elastic partition for stereoscopic views, three double slides in cases, Dallmeyer's rapid rectilinear, Gem shutter, Aputis finder, tripod, solid leather case, etc.; write for full list; price the lot, £10; cost over £16; all guaranteed.—Walton, Windlehurst, Churchtown, Southampton.

McKellen's whole-plate camera, patent turntable and legs, three double backs; McKellen's roller slide to fit, with case, complete, £8 10s.; Shew's half-plate camera, three double backs, £4; Shew's Eclipse shutter, aperture 2½ ins., 10s.; Grimsen's shutter, to fit 10 by 8 Ross' R.S., 17s.; Shew's camera clip, 7s.—The Laurels, Nightingale Road, Harlesden, N.W.

**Sundries.**—Enlarging camera, 5 in. condenser, cost £2 15s.; oxygen gas bag, with pressure boards, cost £2 5s.; oxygen retort and purifier, cost 15s.; two blow-through lime jets, cost 11s. 6d. each; Hepworth's "Book of the Lantern," 10 lantern slides, views, etc., cost 5s.; Lancaster's magnesium lantern, cost 2s. 6d.; 10 oz. bottle Mawson's crystal varnish, cost 2s. 6d.; Stirn's Vest camera, cost 28s.; quarter-plate camera, stand, and case, cost 6s.; head rest to fit, on chair, cost 5s.; 10 sheets 12½ by 10½ Eastman's transferotype paper, cost 5s.; quarter-plate opal printing frame, cost 3s. 6d.; "Enamelling and Retouching," by Pique, cost 2s. 6d.; "Silver Printing," by Robinson, cost 2s. 6d.; one dozen sheets plain albumenised paper, white, half dozen ditto, pink, cost 4s.; gold bevel-edge mounts, 100, 5 by 4, cost 5s.; 80, 4½ by 3½, cost 3s. 6d.; 60, 3 by 1½, cost 1s. 6d.; plain mounts, 50, with red line, 4½ by 3½, cost 1s. 3d.; 100, 2½ by 1½, cost 1s. 6d.; two quarter-plate Eastman's film-holders, cost 2s.; self-portrait shutter, for hood 1½ or larger, cost 5s.; 60-candle power dynamo; offers

wanted. Any item, carriage paid, at 30 per cent. off at above prices.—Robertson, 71, South Methven Street, Perth, N.B.

**Tent.**—Fallowfield's portable guinea tent, for changing and developing, nearly new; what offers?—A. J. Dawson, 25, Sploet Road, Cardiff.

## WANTED.

**Cameras.**—Wanted by a working-man amateur, a whole-plate camera, double extension and all movements; would exchange Marion's half-plate Oxford camera and lens; cost £5; good as new; or would pay part cash.—Address, John Oriel, 10, Llewelyn Terrace, Lliwynypia, Pontypridd.

**Hand Camera.**—Hand-camera, 5 by 4, Swindon and Earp's or Kodak preferred.—Tate, Longwood, Belfast.

**Lens.**—Wide-angle half-plate lens, of good make; exchange six 7s. 6d. vols. of "Popular Educator," or genuine old violin.—Edward Lumley, Ackworth.

**Lens, whole-plate wide-angle;** purchase, or exchange, with cash, £20 safety.—Pellatt, Muswell Hill, N.

**Slides.**—Quarter-plate slides for Instantograph, cash.—R. Pomfret, Heyside, Oldham.

## Monthly Competition.

No. 15.

### GENRE OR FIGURE STUDY.

Title of Picture.	Name of Sender.
Itinerant Clock-Mender ...	W. R. Johnston
"Oh! Stop! Nancy is Falling off the Chair" ...	A. S. Reid
Saturday Afternoon ...	J. H. Thornton
Maiden Meditation, Fancy Free ...	Rev. G. F. Sharland
Stitch in Time ...	W. M. Toplis
The Picture Book ...	G. A. Hammond
Tickling Trout ...	D. G. Urquhart
"Do Play" ...	A. E. Edwards
Irish Constabulary and Prisoners ...	W. White
"Now Look Pleasant" ...	F. de Paula
Watching Wheels go Round ...	A. R. F. Evershed
Native Group (Teneriffe) ...	Miss M. Saville
The Riddle ...	F. Tate
The Birds' Nest ...	T. Heaps
Ursula ...	Rev. R. F. Scott
A Figure Study ...	Mrs. E. G. Bain
Home Lessons ...	H. A. Halliwell
A Love Story ...	T. L. Buck
Foliating the Cross ...	W. Walker
Arab Pilgrims on their Way to Mecca ...	C. V. Shadbolt
Fay ...	C. McLaren
Interested ...	Henry Irving
Young England ...	W. Savage
Tired Out ...	J. E. Ellam
Cupid Fishing ...	A. M. Morrison
Solitude ...	G. J. T. Walford
On Filey Beach ...	Mrs. Malcolm
Humpty Dumpty Sat on a Wall ...	W. H. Hunt
How we Won the Battle "He Cometh not," she Said ...	G. Brown
The First-Born ...	B. Hudson
A Revere ...	F. G. Smart
The Wood Chopper ...	H. S. Smith
His Sunday Boots ...	A. W. Gottlieb
Beyond his Means ...	E. B. Wain
The Doll's Doctor ...	Dr. Forbes
The Crabber of Baginbun ...	B. J. Taylor
A Boulogne Fishwoman ...	H. Goodwillie
Waiting ...	Miss F. M. Pownall
The Professor's Milk ...	H. D. Arnott
Half Hours with the Best Authors ...	G. A. Caruthers
Asking a Favour ...	H. H. George
The Auld Man ...	John Orton
A Close Bargain ...	E. Hawkins
The Morning Prayer ...	J. J. Thornton
	A. R. Dresser

## "Amateur Photographer" Monthly Competition.

### No. 16.—INSTANTANEOUS PHOTOGRAPHS, ANIMALS, ETC.

### Prizes—Silver and Bronze Medal with Ribbon and Clasp.

ONE PRINT ONLY. Must be sent in on or before the 14th August, endorsed "Monthly Competition," etc., to

THE EDITOR, "AMATEUR PHOTOGRAPHER," 1, CREED LANE, LONDON, E.C.

All photographs criticised, and several reproduced every month, in the

"PHOTOGRAPHIC REPORTER," PRICE ONE SHILLING.





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Edited by CHARLES W. HASTINGS

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FRIDAY, AUGUST 29, 1890.

[PRICE TWOPENCE.

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

It will be noted in our correspondence columns that the Ventnor Photographic Exhibition will not be open until January. So many amateur photographers annually visit the Isle of Wight and bring back work done there, that that alone should be an inducement for them to contribute to the Exhibition. Mr. Livesay, acting Hon. Secretary, is a very enthusiastic amateur photographer, and there are many others in the "garden isle."

\* \* \* \*

THE members of the Liverpool Amateur Photographic Association are commencing their work in earnest. At the meeting held on the 28th inst. the arrangements for the winter campaign were considered.

\* \* \* \*

MR. W. I. CHADWICK, of Manchester, has devoted himself to the advancement of stereoscopic photography, and we are pleased to note that he intends reading papers before several societies. We shall be able shortly to announce particulars of our annual "Stereoscopic Slide Competition," which we hope will be more largely contributed to than in any previous year.

\* \* \* \*

PHOTOGRAPHIC exhibits for the Calcutta Photographic Exhibition should be despatched not later than October 1st. We understand that the exhibition promises to be a large one. The enterprise of the Photographic Society of India deserves support. Their *Journal* reaches us, and is again most interesting; it has a supplement, a reproduction in collotype of one of Surgeon-General Newland's photographs, "Main Street in Hyderabad," which is well executed. Articles are published on "The Distortion due to Lenses," by Lieut.-Col. R. Beavan. "Talbotype, or Aristo-Chloride Paper," by Surgeon Newland; "Making Lantern Slides," by A. P. Higgins, etc., etc.

\* \* \* \*

THE Croydon Camera Club prospers, and the new premises at 96, George Street are giving great satisfaction to members. The dark-room is in constant use. The general or meeting room is supplied with the weekly and other technical journals, and the library steadily increases. We understand that all the fittings and furniture have been contributed by members, and the Treasurer's funds have

not been drawn upon in any way. We expect the Club will be able to contribute some valuable papers to the literature of photographic societies during the approaching session.

\* \* \* \*

THE date for sending in photographs to the AMATEUR PHOTOGRAPHER Monthly Competitions will, after the competition "Instantaneous Photographs, Animals, etc.," due on the 14th September, be changed to the 1st of each month. Thus, contributions for competition No. 17, "Enlargements," will have to be delivered at the office of the AMATEUR PHOTOGRAPHER on or before the 1st of October. In this competition two silver and two bronze medals will be awarded.

\* \* \* \*

It is intended to have similar competitions in connection with the *Photographic Reporter* restricted to the work of professional photographers. Special dies will be designed from which the *Photographic Reporter* medals will be struck. The contributions to both competitions will be criticised in the *Reporter*, and several photographs from each competition will be reproduced.

\* \* \* \*

WE have received from the Committee of the Club of Amateur Photographers in Vienna the particulars of the International Photographic Exhibition-Salon in Vienna, to be opened on April 30th, and which will be continued until the 31st of May, 1891. The Exhibition will be under the patronage of the Archduchess Maria Theresa. Only photographs that are passed by a competent jury of artists and photographers will be exhibited. It is held that such admission is an honour, and will be certified by special diploma bearing the signature of the Patroness of the Exhibition, Her Imperial and Royal Highness the Archduchess Maria Theresa. "The jury have the privilege of recommending competitors for special good work for the Vermeil Maria Theresa Medal. The number of these medals is not to exceed ten, and must be awarded unanimously." No photograph will be admitted without the approval of two-thirds of the jury. Applications must be made not later than the 15th of January, 1891, and exhibitors will kindly forward their photographs before the 1st of April. The Committee will appoint an agent in London to receive



English exhibits, who will forward them to Vienna, and to whom they will be returned free of charge. The names of the jury will be published before the 1st of January. No photographs that were exhibited at Vienna in 1888 will be eligible for entry. All communications must be made to the President of the Club, Carl Srna, VII. Stiptgasse, I., Vienna.

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A 1, an excellent monthly magazine, contains an article by Mr. Walter B. Woodbury upon "Spirit Photographs," and how they are produced. The article is very cleverly illustrated.

\* \* \* \*

MANY of our readers will, we think, be interested to know something about the examinations in photography held annually in connection with the City and Guilds of London Institute for the advancement of Technical Education. Sir Philip Magnus has kindly favoured us with a copy of the "Programme of Technological Examinations, Session 1890-91." Photography forms one of the subjects for examination annually, and Captain W. de W. Abney, C.B., R.E., D.C.L., F.R.S., etc., is the examiner.

For the examinations in 1890 the questions were as follows:—

ORDINARY GRADE. (*Seven questions to be answered.*)

1. What is the cause of reversal of the photographic image? Give any facts you may know regarding it.
2. Describe the production of a transparency by the carbon process.
3. Give your views as to varnishing a gelatine negative, and describe how you would do it.
4. What is the difference between a physical and a chemical restrainer and a developer? Give examples of both.
5. A photograph of a snow-clad mountain, brilliantly illuminated by the setting sun, was taken. In the resulting print there is no trace of the brilliant high lights nor of the apparently deep shadows, but the mountain appears as if photographed on a sunless day. What is the cause of this result, and how could the effect of the sunshine be photographed?
6. What are the essentials for lighting a figure in a well-appointed photographic studio? Give the reasons for your answer.
7. What is the optical centre of a lens, and where does it lie in a single landscape lens?
8. How should you test a lens as to its qualities for photographic work?
9. What alteration in the composition of the ferrous oxalate developer is found after the development of a plate?
10. Such chemicals as bicarbonate of soda, acetate of soda, and chalk form part of a toning bath for prints on albumenised paper. Why are they added? Give a formula for a toning-bath.
11. Describe how you would make a gelatine emulsion suitable for copying an engraving.

HONOURS GRADE. (*Seven questions to be answered.*)

1. What is the flare spot in a photographic lens? How is it produced, and how mitigated?
2. Give your ideas as to the truth or the reverse of the gradations of light and shade as produced in a photograph. Enter as fully as you are able into the subject.
3. Is it possible to develop any plate in absolutely white light? Discuss the matter fully, giving reasons for your answer.
4. How should you proceed to retouch a negative, and what are the legitimate limits of retouching?
5. Can the luminosity of the colours be reproduced accurately by means of photography? Give full reasons for your answer.
6. Describe in detail any process you may be acquainted with for producing relief blocks for printing.
7. Describe the intensification of a negative by the method which you consider the best, giving the chemical reactions which take place.
8. Describe the distortions produced by a single-lens; show how they arise, and how they can be cured.
9. Discuss the question of the change in composition of silver chloride which is produced by the action of light.

10. Describe some process for toning in platinum, and give the changes which are produced in the image.

11. What is usually meant by the disc of confusion? What is the limit allowable for its diameter in a sharply-defined photograph, and how can this be attained?

12. Give the advantages and disadvantages of pinhole photography, and discuss, as far as you are able, the theoretical limit of the diameter of the pinhole that should be employed, with a length of 12 ins. between the pinhole and the plate.

Prizes were awarded:—Glasgow, first ordinary grade, silver medal, Edmund P. Rowden. London, Central Institution, second ordinary grade, bronze medal, Jules E. Mathison Finsbury Technical College, third honours grade, bronze medal, W. A. Watt, jun.; the People's Palace, third ordinary grade, bronze medal, William Smith; Polytechnic Institution, second honours grade, silver medal, Henry G. Walsh. These comprise the whole of the prize winners. We feel assured that were particulars of the City and Guilds of London Institute examinations more widely known, many amateur photographers would enter for them.

The 1891 examinations will be held on Wednesday, April 29th, from 7 to 10 p.m. In the ordinary grade the examination will include questions founded on such subjects as the following:—

1. The characteristic properties of pyroxylin for the manufacture of collodion, and the various substances employed for the purpose, as well as the solvents, such as ether, alcohol, wood naphtha, etc. Different qualities of collodion.
2. The wet process, dry-plate processes with the silver bath, gelatine and collodion emulsion processes, and the principles involved in each.
3. The theory of development by the acid and alkaline methods. The theory of intensification.
4. Printing in silver and other metals, toning and fixing; printing in carbon.
5. The collotype and powder processes. Photo lithography.
6. General principles of portrait and landscape lenses. The principles of construction of cameras.
7. The various apparatus in ordinary use by photographers.

In the honours grade the questions are more difficult, and will be set in the above subjects, and, in addition, a knowledge will be required of:

1. The daguerreotype process, the calotype process.
2. Woodburytype, stannotype, vitrified enamels.
3. Special applications of photography to engraving; typography.
4. Special applications of photography to astronomical and microscopical purposes, as well as for recording meteorological and other observations.

For the full technological certificate in the ordinary grade, the candidates will be required to have passed the Science and Art Department's examination in the elementary stage at least; and for the full certificate in the honours grade in the advanced stage at least, in two of the following science subjects: Practical, plane, and solid geometry—Light and heat—Inorganic chemistry—Organic chemistry.

There are some sixteen registered teachers in different parts of the kingdom, in addition to professors and instructors, attached to the several colleges which are associated with the Institute. The fullest particulars can be secured by addressing the "City and Guilds of London Institute," Examinations Department, Exhibition Road, London, S.W.

We have given sufficient reference to these examinations, possibly, to induce some of our subscribers to try their ability, and we trust with success.

\* \* \* \*

THE *Electrical Review* says, "The demonstrations given by Mr. C. V. Boys of his photographs of falling water drops are well known, and Lord Rayleigh recently remarked that it had never occurred to him as being possible to obtain enough light from a single spark to photograph



the drops as Mr. Boys has done, and he attributed this success to the fact of his using no lenses, which would absorb the ultra-violet rays. It is not, however, so generally a matter of common knowledge that Mr. P. Lenard succeeded very well some years ago in photographing water drops falling through air, with single sparks, the light of the spark passing two glass lenses and the objective of a camera which gave magnified images. Copies of Mr. Lenard's productions appeared in the *Annalen der Physik und Chemie*, vol. xxx., 1887, and show all the forms obtained by Mr. Boys. It may be interesting to state that Mr. Lenard has a paper in the same journal, No. 4, 1890, entitled: 'Leitungswiderstand von Wismuthdraht im Magnetfelde für Constante Ströme und Electriche Oscillationen.'

\* \* \* \*

MR. A. H. C. CORDER, of 40, Montpelier Road, Brighton, writes us:—"Will you allow me to state that the Brighton Photographic Society have just fitted a dark-room at their premises, and that visitors to the town can use the same for the purposes of changing or developing plates. The following is an extract from our rules:—

"Visitors not resident in Brighton desirous of availing themselves of the accommodation provided by the Society shall pay a fee of 1s. 6d. per week (such fee to be payable in advance), and shall be entitled to all the privileges of membership, voting alone excepted, upon production of a satisfactory reference."

All applications for the use of this room must be made to me by letter only.

## Letters to the Editor.

### ARISTOTYPE PAPER.

SIR,—Your correspondent, in writing on the subject of "Aristotype Paper, and How to Use it," invites those who have used the process to give their experience for the benefit of your readers. Since the introduction of the aristotype paper, I have used hardly any other process, and the results which I have obtained prove this paper, in my opinion, to be one of the most suitable for the use of amateurs. Its principal advantages are that it is suitable for all classes of negatives, over-exposed and under-exposed, dense and thin; that it is a quick process and a sure one. I should recommend those who are about to give aristotype a trial to adopt the single bath "combined toning and fixing" method, and to buy the solutions ready mixed. The working is simple in the extreme. The print should be, before toning, considerably darker than required when finished. It is placed, without washing, into the combined bath, where it remains until the required depth of tone is gained; the print is then washed in the usual manner, and is finished. Nothing easier and nothing more simple. Should a glaze be required, and the prints are at their best when finished in this way, proceed as follows:—Leave the print, which is undergoing its final wash, in the water. Take a piece of glass, without scratches, wash it well under a tap, and polish with a clean cloth. Then dust well with French chalk, and rub with a piece of cotton wool until the powder disappears; if it does not disappear, dust it off with a cloth. Now take your print from the water, and let the superfluous water run off, place it face downwards on the glass, and through a thickness of blotting paper squeegee in the usual manner. Stand the glass on one side and leave it till quite dry. This is one of the causes of failure; do not attempt to move the print until there is no doubt about its being dry. With a knife lift up one edge of the print, and it will peel off; if it will not peel off it is because there is dirt on the glass, damp in the print, or the French chalk has been omitted. If these points have not been neglected, the print will peel off with great ease. I never have a sticking print, although I work without great care. The most successful method of mounting the glazed prints which will not bear handling on the surface, I learned from the directions given with a mountant; it may not be generally known. The aristotype prints must be mounted dry; use always a paste mountant. Do not apply it to the print itself, but cover a sheet of ordinary paper well with the mountant by means of a brush. Take the

print and place it as if to mount it on the paper, then squeegee, quickly, of course, over an intervening sheet of paper. Quickly peel off the print again, place on the mount, and squeegee. By this means the print is evenly coated with paste, without the slightest chance of damaging the glazed surface.

Those who are about to try the process of aristotype need not be afraid of its difficulties, as sometimes portrayed. It always makes the best of a bad negative, and is consequently the amateur's friend.—Yours truly,

L. L.

August 25th, 1890.

\* \* \* \*

### DEVELOPING FORMULÆ.

SIR,—Being a constant reader of your valuable paper, it is only right to state that I have derived much benefit from its perusal, and especially from the re-perusal of old numbers.

In turning over the leaves of the last two or three volumes I was very much struck by the repeated requests for developing formulæ, and the number of formulæ given in reply, all differing in a greater or lesser degree, and all warranted to give the best results!

Now, as I have not the opportunity, as many of your readers have, of going forth into the country with my camera, and of returning home laden with rich spoil in the shape of exposed plates, the thought occurred to me of picking out various formulæ and experimenting with them, with the hope that perhaps the results of those experiments might be helpful to the aforesaid class of fortunate readers on their return home.

And, in the beginning, let me state my firm conviction that no developing formula will correct wrong exposure to the extent that we would like it to do, and it is this desire which causes so many requests for formulæ, in the vain hope that one may be given which will make up for all the errors in exposure.

In my experiments the correct exposure—verified by development—was obtained by means of the Watkins exposure meter.

The plates used were the Ilford (slow and rapid), Fry's 60 times, and Thomas's extra rapid.

The developing formulæ chosen, after much deliberation and trial from amongst a great number, were the following:—

#### I.—THE PYROGALLOL DEVELOPER.

Potassium bromide .. .. .	2 drachms.
Liquor ammoniæ, '880 .. .. .	2 ounces.
Distilled water .. .. .	4 "

Dissolve and mix. Keep in a stoppered bottle labelled A.

When the plate is ready for development put 3 grains of pyro in two ounces of water, add 4 drops of A, stir well with a glass rod, and pour the resulting mixture over the plate.

When the development slows, add a few drops more A, and soon enough density will be obtained.

For over-exposure decrease the amount of A and add a few drops of a ten per cent. solution of potassium bromide.

For under-exposure increase the amount of A.

#### II.—THE FERROUS OXALATE DEVELOPER.

*Vide* vol. xii., p. 102, *et seq.*, under the heading of "The Ferrous Oxalate Developer," by D. E. Goddard.

#### III.—THE HYDROQUINONE DEVELOPER.

Hydroquinone .. .. .	10 grains.
Potassium carbonate .. .. .	30 "
Sodium sulphite .. .. .	40 "
Distilled water .. .. .	2 ounces.

Dissolve.

*Vide* vol. x., p. 219, under the heading "Hydroquinone Yet Again."

#### IV.—THE EIKONOGON DEVELOPER.

##### Solution No. 1.

Eikonogen .. .. .	1 ounce.
Sodium sulphite .. .. .	2 ounces.
Distilled water .. .. .	40 "

##### Solution No. 2.

Potassium carbonate .. .. .	1 ounce.
Distilled water .. .. .	10 ounces.

##### Solution No. 3.

Potassium bromide .. .. .	1 ounce.
Distilled water .. .. .	10 ounces.

For use take—

Solution No. 1 .. .. .	3 ounces.
Solution No. 2 .. .. .	1 ounce.
Solution No. 3 .. .. .	6 to 30 drops.



For correctly exposed plates the quantity of solution No. 3 should be large, especially in warm weather.

*Vide* vol. xi., p. 357, under the heading of "Our Contemporaries at Home and Abroad."

I find that if the eikonogen is powdered with the sulphite of soda we get the beautiful green solution, which does not quickly deteriorate into the horrible brown mixture so frequently complained of.

Four plates were exposed on the same subject as rapidly as possible.

The first of each batch of four plates was developed by the normal pyro developer, and thus the correctness of the exposure verified. The results were as follows:—

Developer I. gave slow-printing, soft negatives.

Developer II. gave very unsatisfactory results, especially with Fry's 60 times.

Developer III. gave brilliant quick-printing negatives.

Developer IV. gave negatives nearly as good as III., a trifle softer. No want of density; too much was the danger.

Owing to the latitude in exposure which hydroquinone allows—*vide* Dr. Vos' excellent letter, vol. x., p. 5—I should recommend it for beginners' use.

Along with yourself—*vide* vol. x., p. 79—and others I should recommend eikonogen for short exposures.

But for beautiful printing negatives I think we must still adhere to what one of your correspondents calls "our dirty old friend pyro." It is dirty, but it is dear; we cannot afford to part with it.

As this letter is written specially for beginners by one who has experienced to a larger extent than most amateurs the difficulties of exposing and developing, it cannot be more appropriately closed than by impressing the necessity of correct exposure, and that is to be easily obtained by the Watkins exposure meter. It is an instrument of precision, and is both simple and handy.

I have been making a few preliminary experiments with pyrocatechin. If any of your readers can assist me with formulæ I should be much obliged, in the hope that in this substance we have a true preventive to fog from light during development.—Yours sincerely,

DAVID ANDERSON-BERRY, M.B., F.S.A.Scot., etc.

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#### EXHIBITION AT VENTNOR.

SIR,—On behalf of the Committee of Ventnor and Bonchurch Literary and Scientific Institution, I beg to thank you heartily for your liberality in promising the AMATEUR PHOTOGRAPHER Silver and Bronze medals for competition at our proposed exhibition.

For various reasons we have determined not to hold the exhibition until January next. Amateurs will therefore have plenty of time to develop and print the negatives exposed during their autumn tour.

Several local prizes have been offered. Colonel Malden has promised a camera, and Mr. Ryan, the Master of our School of Art, will give a water-colour drawing. A special prize of considerable value will be offered for the best series of views illustrating the scenery of the Isle of Wight.

It has been decided to admit a limited number of pictures by professional photographers, to be classified, of course, separately from the work of amateurs.—Yours, etc., JOHN G. LIVESAY.

Cromartie House, Ventnor,  
August 23rd, 1890.

\* \* \* \*

#### DARK-ROOMS.

SIR,—Will you please add the address of the Naples Camera Club, 47, Strada Cavallerizza, Naples, to the list of your Continental dark-rooms. A small fee is charged for the use of the room, and visitors are admitted on the presentation of a card which can be obtained by writing a day or two beforehand either to our Treasurer, Alfred Green, Esq., Strada Calabritto No. 2, or to the undersigned.

The new premises are nearly complete, and we have besides our reading and developing rooms a well-lighted studio and daylight enlarging room.—Yours faithfully, HENRY C. ELLIOTT,

75, Via Genuaro Luce, Naples, Hon. Sec. pro tem.  
August 18th, 1890,

#### ART AND PHOTOGRAPHY.

SIR,—I cannot help thinking that the term "art" is too often misapplied in its relation to photography. As an art student and an amateur photographer, I am forced to come to the conclusion that art and photography are totally dissimilar. A painting is a picture of what a man sees (or imagines) as recorded by his own hand with the assistance of his brain, but a photograph is merely a light-written record of certain objects, produced by various optical and chemical means. In other words, photography is strictly a scientific process. To be able to write a good hand does not make a man an author; and to be able to take a good photograph does not make the operator an artist.

This point I wish to insist upon, because the successful photographer has too often been taught to believe that he is an artist, which is certainly not the case.

No one values photography more than myself. Its uses are innumerable, its future almost without limit. But I desire to point out that photography is simply an additional power of recording facts, and the ability to exercise it can be gained by anyone in a few weeks or months. The beauty of whatever objects or scenes may be reproduced proves (if indeed it proves anything) only that the photographer has an educated eye, and appreciates the beautiful. Is he necessarily an artist? Is a man who admires a grand poem necessarily a poet? Certainly not. And the man who admires and photographs a fine scene is not on that account more an artist than one who only admires.

Art is art, precisely because it is not nature. We cannot find art by going to nature. Art is artificialism as opposed to naturalism. Art is the expression of personality; photography is a reflection of nature, not an interpretation. Photography has but a limited scope, and does not allow individualism. Within its own limits it will find great and increasing opportunities for usefulness. But in attempting to identify itself with art it will fail, simply because machine-made pictures cannot be at the same time the full expression of an artist's skill.

"Picture-making" by photography is now going on to an enormous extent, its influence being generally (as far as the education of the eye is concerned) good. But what about the education of the hand? Are we all greater artists than we were? Or does not the very ease with which pictures can be produced draw aside from the study of art, and the practice that alone can make perfect, very many who look on photography not only as a help, but as a means to escape a great deal of hard work? The consequence is that the servant ends by becoming master, and, in too many cases, the "artist" takes "pictures" instead of learning to draw.

Perhaps in the dim and distant future the amateur photographer of to-day will have much to answer for. He may regret, when regret will be of no use, that he has made his hobby an end rather than a help. And he will reflect bitterly on his own folly, in thinking that the spirit of Art was to be caught in a box with a lens at one end.—Yours faithfully,

August 23rd, 1890.

WALTER WHITE.

\* \* \* \*

#### INTERNATIONAL PHOTOGRAPHIC EXHIBITION-SALON IN VIENNA.

SIR,—Enclosed we have the pleasure of sending you the programme of our next exhibition, and letter of the Committee to English photographers of reputation.

Thanking you for the kind support you promised our member, Mr. Ulrich, on his last visit to England, we venture to hope that you will continue to give us your valuable assistance, as we are well aware that the influence of your excellent paper will secure us the names of the best English artists in photography, and thereby also ensure the success of our exhibition.—We are, dear sir, yours obediently,

CHAS. SERNA (President),  
D. F. MALLMANN (Vice-President).  
CARL ULRICH (Vice-President).

Wallfischgasse, 4, Vienna, August 24th, 1890.

(Letter referred to.)

"We are anxious only to exhibit the very best in photography, therefore we are appealing to you personally and to such others whose names are well known as artistic workers.

"Although we are writing so early, we should be thankful if you could kindly state whether you will be able and willing to join our exhibition.

"Any suggestions you might wish to make will be thankfully received by the Committee, and if possible carried out."



# The Stereoscope.—VIII.

BY VALENTINE BLANCHARD.

DRY-PLATE photography has wonderfully smoothed the path for those who with ordinary appliances desire to produce stereoscopic pictures. In the palmy days of the stereoscope, twenty years ago—with the exception of two or three very slow dry-plate processes, nearly all of them very slow indeed, when minutes, one might almost say hours, replaced seconds in the exposure—the wet collodion process was almost universal, and in consequence it became imperative to take the twin pictures on one plate; but with the modern dry plate any possessor of a quarter-plate camera, or even a detective camera, may, with scarcely any trouble, make photographs for the stereoscope.

If the enthusiastic amateur be in any way of an inventive turn of mind, several ways may suggest themselves to make the additional apparatus necessary for the purpose. For those not so mechanically inclined, the following simple piece of additional apparatus will be found quite sufficient for the purpose, and it can be made by any carpenter (fig. 9).

Its size will be determined by the base-board of the camera. All that has to be remembered in its construc-

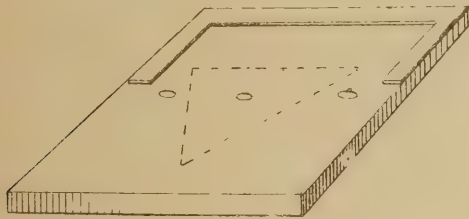


FIG. 9.

tion is the fact that a movement from left to right, or right to left, of about three inches is necessary. It is hoped an examination of the diagram will make all clear. Perhaps, however, it will be better understood if we describe exactly our own experiment. A very light quarter-plate camera was employed, the base-board of which measured  $7\frac{1}{2}$  by  $5\frac{1}{2}$ . It became necessary to get ready a smoothly-planed piece of wood  $9\frac{1}{2}$  by 8. On the front and partly on two sides pieces of wood half an inch wide were neatly fixed. This furnished, as will be seen by the diagram, a true edge for the front of the camera, and a boundary on each side for its lateral movement, which will be seen to be exactly three inches, for the inside measurement will be found to be  $7\frac{1}{2}$  by  $8\frac{1}{2}$ . The wood was not continued entirely along the sides, because the focussing screw came in the way; but wherever possible it is best to continue it quite along, for it furnishes a protection against warping. A hole is placed in the centre for a flat-headed screw to attach it to the tripod head, which is shown by dotted lines, and two other holes are marked to attach the camera by means of the ordinary screw from below in the usual manner. With a little practice the unscrewing of the camera and the rapid movement from right to left, and re-screwing, should only be the occupation of a second or two, for the exact limitation of the camera should bring it in each movement exactly over the hole, and make the attachment of the screw a matter of no trouble whatever. When the camera is in position, the screw is really not necessary, except where trigger shutters are employed, but perhaps it is better to get into the habit of always using it.

To make the identification of the right-eye and left-eye pictures an easy matter—for, of course, they are on separate plates—the amateur is strongly advised to be very methodical, and never depart from the order of his exposure

of the plates. For instance, he should always employ No. 1 slide for his right-eye picture, and No. 2 for the left, and so on; and then the lowest number of any slide will always be the right-eye photograph. It would be well also before development to mark each plate in the corner with its number, for without this precaution he may easily become fogged as well as his plates.

Of course he must develop the plates in pairs if he would have them uniform in density, for, by an absolutely fixed exposure which would take place in the employment of a shutter, each plate ought to come up in development exactly like its twin.

Theoretically the lens should converge slightly towards a common centre between the right-eye and left-eye picture, in order to bring about an exact counterpart of the operation of the eyes in looking at the same scene; but in practice it is really not necessary. Latimer Clark's camera, well known thirty years ago, provided for this, and may be briefly described.

A table somewhat similar to the one shown in fig. 9 was provided with a pair of bars having studs at one end, which fitted into corresponding holes in the bottom of the tail-board of the camera. The other end of the bars was attached to right and left hand screws extending along the front of the table, and having a milled head at each end. The camera really rested on two pivots, and by turning the screw, and thus throwing the bars slightly out of the parallel, and slightly nearer to each other, the arc of an extensive circle would be described, and would place, therefore, the two pictures in the camera in exactly the same position with regard to the common centre as the same view when seen by the two eyes of the beholder. In the twin-lens camera it was never found necessary to make the lenses converge, and the little difference in the right and left pictures could always be provided for in the mounting of the pictures. We have not found it necessary to alter the parallel in the diagram given above, but think it right, however, to refer to Mr. Latimer Clark's most ingenious instrument, for it occupies a distinct place in the history of the stereoscope.

Fig. 10 shows how to use a single lens—by this we, of course, mean one lens, and not necessarily a single combination—on a  $7\frac{1}{2}$  by 5, or  $8\frac{1}{2}$  by  $6\frac{1}{2}$  camera. Of course, it must be provided with a centre partition, as shown by the dotted line in the diagram, and the sliding front must fit exactly so as to be light-tight. The lens at the back should *very nearly* but not quite touch the end of the partition, for that would interfere with the freedom of its

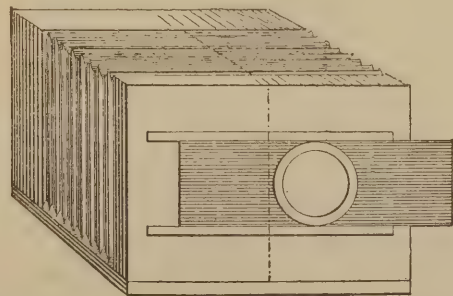


FIG. 10.

movement. The reader must remember what we have said on page 105, *that light does not travel round corners*, and then he will see that if the light from the back of the lens is well beyond the edge of the partition he will be quite safe from fog.

No matter what camera be employed, it is most important



in making stereoscopic pictures to employ a spirit-level. A little consideration will show why this is. The horizontal line in each picture should be absolutely identical, and without this aid of the spirit-level it is almost impossible to attain it.

(To be continued.)

## The Electric Light and Photo-graphy.—IX.

By T. C. HEPWORTH, F.C.S.

(Continued from page 121.)

THIS is the Brockie-Pell regulator which, originally designed for the more general purposes of electric illumination, has been adapted to projection work by Messrs. Newton and Co., of Fleet Street. Referring to fig. 1, it will be seen that the apparatus consists of a metal box having one of its sides sloping, parallel with which are carried the carbon rods. The upper rod does not need any detailed description beyond noticing that it is set well back, so that its outer edge is in a line with the centre of the lower pencil, as in the case last dealt with. It is supported on an arm which projects from a central pillar, and which moves down as the carbon pencil wastes away, the entire arrangement being kept in position by the fixed rod *a*, upon which the moveable part slides to and fro. The lower carbon is continually pressed against a collar *c* by the action of the spring *d*, while the exact length of the arc can be regulated by the screw *e*. *tt* are terminals where the wires conveying the current are attached.

Messrs. Newton have also devised an electric lantern of novel and ingenious form, in which this regulator is employed. It differs from the general form of optical lanterns in being cylindrical, and it is wholly made of metal. The body *MM* (see fig 2), made of Russian iron, is pierced with three main openings. One, *W*, is for the attachment of a microscope, another, *L*, is fitted with the ordinary objective

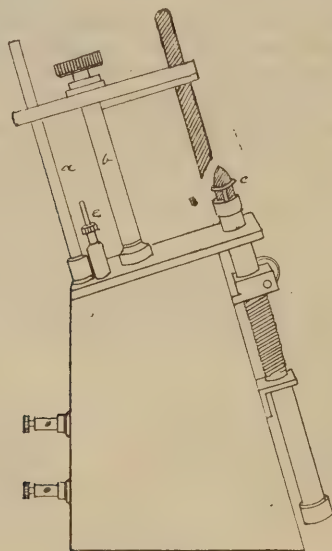


FIG. 1.

for lantern projection, while the third is furnished with an adjustable slit for spectrum projection. The body of the lantern can easily be turned round so that any one of these nozzles can be brought into employment. But for spectrum work, where the light spot must not face the screen, the entire apparatus turns upon a central pivot, the base-board

being in two halves. The lower half remains fixed, while the upper one turns on its pivot until the right angle is obtained. *T* is the body of the regulator, and *EEE* are three milled-edged discs by which it can be raised or

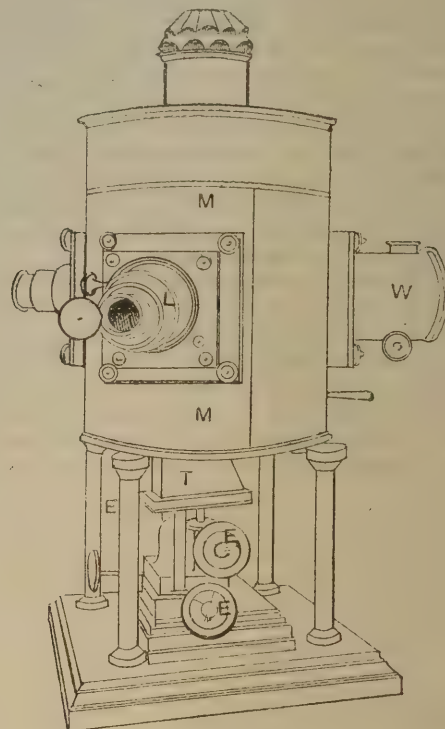


FIG. 2.

lowered, moved backward or forward, and to the right or left respectively. By this means the spot of light can be most exactly centered. This lantern presents the most complete and perfect projection apparatus ever devised, and is designed principally for use in science schools and colleges.

It is only those who have had experience of science teaching who know the value of an experiment both to teacher and pupil. It is often difficult to make young scholars understand the nature of an experiment from mere verbal description, even if the words be illustrated by careful drawings on the blackboard. But directly the thing is seen itself, all becomes plain sailing. The pupils take immediate interest in the matter in hand, and the master feels that they are doing so, and redoubles his efforts to make them understand aright. One feels inclined to envy the teacher who has this cylindrical lantern at his elbow with which to illustrate his remarks. At one moment he may want to show a few diagrams, which possibly have been prepared for him as lantern-slides by the senior pupils; next he may desire to illustrate the structure of some organism by means of the microscope, and the instrument is then ready for use. The great advantage gained in the use of a lantern microscope for class teaching can hardly be realised except by those who have seen a large histological class at work at one of our hospital schools, each member of which has a microscope before him, and is peering into it as the teacher does his best to describe what each *ought* to see. Now it is obvious that each student is looking at a different slide, and although these slides will have features in common they cannot all be the same. But in the case of the lantern microscope, each student has his attention directed to the enlarged image of the same object, and the teacher can with his pointer show the well-marked



peculiarities of the subject. The spectroscope can as readily be brought into use as the two other nozzles of the electric lantern, and thus the teacher has a very wide range of experimental matter within his reach. Under other conditions, an experiment would often be carefully shunned, on account of the expense and trouble involved in its preparation and demonstration.

Mr. G. M. Hopkins describes, in his admirable work "Experimental Science," an adaptation of the Jablochhoff candle to projection purposes. It will be remembered that the so-called candle made a sensation when first introduced in this country, for it was looked upon as a simple and efficient device for doing away with all the mechanism and consequent expense of regulators. For some years the Thames Embankment was lighted by these candles, and the effect was very beautiful, but the expense of maintenance was too great, and the lights were discontinued. In the "candle" the carbons are placed side by side, but are separated and insulated from one another by a thin wall of plaster, which is consumed as the two carbons gradually waste away. As this waste must be equal, the candles can only be used with a dynamo machine which gives an alternating current, that is to say, a current which changes its direction continually.

For projection work Mr. Hopkins employs this candle in a horizontal position, so that its luminous end is presented towards the condenser of the lantern, and its radiance is concentrated at this spot by an ingenious device. This consists of a helix of wire placed around the end of the candle, through which the same current which supplies the light is caused to flow, with the result that the arc is attracted towards the ring or helix, in opposition to its tendency to follow the direction of the carbon rods. The horizontal "candle" slides in a suitable support, and can be kept at the correct distance from the condenser by manipulating an ebonite handle at the further end. As the Jablochhoff candle consumes at the rate of about ten inches an hour, it is obvious that its use in the lantern must be confined to experimental purposes. One very serious defect it has, which is this: if from any cause the light is quenched, it will not recover itself automatically—the two ends of the carbons must be touched with some conducting medium before the arc can be re-established.

This consideration led, some few months after the introduction of the electric candle, to a modification by M. Rapiéff. He placed the carbons side by side, as in the Jablochhoff arrangement, but dispensed with the separating wall of plaster, and substituted for it a wall of air. The carbons were set in two sockets about three-eighths of an inch apart, and if the light was extinguished their ends fell together, and immediately sprang apart again when the arc was established. This plan could readily be adapted to lantern purposes, but the fault of quick consumption would still remain uncorrected.

## Photographing in Iceland.

### II.—THE ROUND TRIP IN DETAIL.

WE stayed at Reykjavik for about two days, the greater part of our time being given to laying in and stowing our provisions for the journey into the interior. During this wait four of our party got into serious trouble. Their crime was not a grave one, though veracious natives told us that offenders in a similar direction had in the past been most rigorously punished for the misdemeanour. A section of us were quietly completing the details of the commissariat, when a messenger rushed in with the startling news that four of our companions were arrested. Visions of imprisonment and other awkward situations—particularly awkward

in a foreign country—flashed through our bewildered brains, but we strode out firmly, determined to stand by the degenerate quartette to the last gasp. After a most anxious time we learned that the four gentlemen in question were arrested for offending against the State, in that they did furiously ride through the streets to the danger, etc., etc., etc. Finally, it being found that the misdemeanants were Englishmen—strangers in a far-off country—the law announced itself appeased with a fine of two kronas (2s. 3d.) each.

The policeman at Reykjavik is not troubled with too much work; in fact, the Lange party seemed to give him as much to do as the whole native population—which, by the way, is not 3,000 strong, but 7,000. Not that the Lange party was not eminently respectable and well-conducted, but we somehow had the happy or unhappy knack of falling foul of this functionary at most inopportune times.

On Saturday the 5th, we lunched with a Mr. Johnson, an excellent host well posted in everything affecting the island. He showed us over the "Althing House," the Iceland parliament chamber, and the room of Sigurdsson, the Icelandic patriot. The former is an unpretentious structure containing a few good pictures; the room of the patriot, hardly interesting to "foreigners," perhaps, is just as he left it when he died. Evidently Icelanders have untold veneration for the memory of this personage. Many people affirm that he is the only patriot and man of mark that Iceland has produced. This is significant, and explains a good deal. On the evening of the 5th, Mr. Lange supped with the Dutch Consul. We didn't hear him come home, that is, to the hotel. Tackled about it the next morning, he confessed that he took his boots off at the front door, and climbed upstairs on his hands and knees. He didn't want to disturb us, which was more than considerate of him, especially in a country where there is little or no night. We accorded Mr. Lange a hearty vote of thanks at breakfast, which, I need hardly say, he thoroughly appreciated.

It was on Sunday, the 6th, that we set out from Reykjavik, making for Krisuvick, the district of the renowned sulphur springs. Here, again, our policeman collided with the plans of the party. We were desirous of making an early start, but, out of deference to the representations of this irrepressible official, we delayed the beginning of the march until after three o'clock in the afternoon. We thoroughly understood by this time that our "politeful" police constable knew something. Accordingly, when he told us that if we attempted to move the caravan before three o'clock there would be more firing and further delay, we saluted him, and fell into line with his ideas at once. While waiting for the signal to "move on" I counted up our cavalcade. Here is what I find in my note-book:

9 of ourselves.  
7 guides.  
3 tents.  
26 pack-boxes.  
61 ponies.

We are ready booted and spurred, prepared to mount, and fit for almost anything we may encounter—from a tidal wave to an eruption of Hecla. In our Boer hats, riding breeches, top boots, belts, and the rest, we look like so many buccaneers on a hot trail. Ah! there is the signal to start; then away we go.

Krisuvick is some twenty-nine miles from Reykjavik. Our route lay over wild, rugged mountains and apparently interminable lava beds. Here let me say that the prevailing colour in Iceland is not black exactly; it is a purply-black, rich-looking but oppressive. This tint is found on the mountains, in the valleys, across the plains—everywhere. I have said that our route lay over wild, rugged



mountains; I don't think we had the good luck to strike a square foot of level country in the whole of the ride. They don't have level country in Iceland. The nearest approach to flat country are wide stretches of land made up of undulating ground, grave-like mounds, and hillocks. "This," said a native to us once, "is a wise dispensation of Providence. If the country were quite flat our grass supply would be still more limited than it is. We can grow more, you know, up the sides and over the tops of these mounds and hillocks." We didn't discuss the point further. The arrangement may suit the natives of Iceland, but it is decidedly unpleasant for men who are not accustomed to riding on horseback. But of this something later. *En route* we passed Hafnarfjörör, a pretty little fishing village boasting about four hundred inhabitants and situate at the head of the fjord which gives the place its name. We also crossed the Kalda (or cold) River, about half way on our journey, where the stream suddenly and mysteriously disappears in the lava and is seen no more. The effect of this vanishing on the unsuspecting novice is such as to give him a creepy feeling, which haunts him for the remainder of the ride; it gives him a rather-too-close-to-be-pleasant idea that he is travelling on the crust of a volcanic pie, which may burst up at any minute and swallow him in the contents.

We left Reykjavik at a few minutes before four o'clock, and arrived at Krisuvik about ten o'clock. Two hours later, at twelve o'clock midnight, we had tea, getting the hot water from one of the sulphur springs. What a refreshing meal it was, after a twenty-nine miles ride up hill and down dale, over a long continuous succession of lava clinkers! It mattered not that our hot tea savoured strongly of sulphur. On the contrary, we rather enjoyed the added flavour. The medical gentlemen who accompanied the expedition also assured us that the sulphur would be grand medicine for our respective systems. What could we wish for more? We would return home—if the pesky island behaved itself—with complexions such as Madame Rachel herself could not surpass. Of course, we were tired—and sore. Half a dozen hours in the saddle, with only one short rest, and across such a country, was a pretty "tall" thing to accomplish. We had a splendid night, sleeping *on hay*, nine in a tent, amid clouds of steam—on the very edge, as it were, of a hundred boiling cauldrons. Macbeth's witches, had they been of a roving and inquiring turn of mind, would have found Krisuvik hard to beat. As for our tired-out party, we simply slept, slept, slept; the knowledge that there were icy-cold water springs within a few feet of the boiling hot sulphur springs perhaps making us feel more secure than we otherwise would have felt. We did not say these things to each other—men do not exchange confidences under all circumstances—but we felt them, which is just as eloquent, perhaps, and more pleasurable and satisfactory to human nature. We kind of shook hands with ourselves secretly, at the same time putting on a careless, indifferent air outwardly to each other. We awoke stiff but refreshed, and then each plunged into a river flowing from the hot springs. The "tubbing," if "tubbing" a swim in warm sulphurous water can be called, proved an admirable reviver, and we mustered at breakfast in splendidly fit condition.

(To be continued.)

THE "TALMER" HAND-CAMERA.—Through the courtesy of the manufacturers, Messrs. Talbot and Eamer, of Blackburn, we are in a position to show the "Talmer" to callers. It may be inspected on our "at home" days, viz., Monday afternoon and Thursday mornings. This hand-camera is one of the cheapest, if not the cheapest, to be of any service, at present in the market; it is well made, and will be found a useful companion on any photographic holiday.

## Enlarging by Artificial Light.

BY PERCY MORRIS.

First Prize—Competitive Paper.

THE introduction of bromide paper for enlarging has, within the last few years, opened up a comparatively new field of enterprise for the amateur photographer. This is due, in no small measure, to the simplicity of the process, and the permanent character of the results obtained by it. Of the two methods of enlarging—by daylight and artificial light—the latter must of necessity commend itself to many who, for various reasons, are unable to spare sufficient time during the day for such pursuits. Daylight, owing to its greater penetrating power, is to be preferred, perhaps; yet there is no doubt that with suitable artificial light and increased exposure, excellent work may be turned out, and, moreover, the standard of illumination is constant.

The principle upon which enlargements are made is briefly as follows: rays of light are transmitted through a negative, an image of which is projected on to a sheet of sensitised paper by means of a lens placed in the path of the rays.

In describing the form of apparatus necessary for this branch of work, we must, I think, take it that a condenser is a *sine qua non*. Various methods of diffusing the light, such as ground glass and opal, have, I know, been suggested, but its actinic value is decreased enormously, in proportion to the number and thickness of such media requisite to produce sufficient diffusion. If means of this kind must be employed, the larger the flame, the more it is kept moving during the exposure, and the smaller the negative, the better the result; by using magnesium ribbon the time of exposure can be considerably lessened. We cannot, however, look for uniform work by methods which, at the best, must be regarded more or less as makeshifts.

*The Light.*—Of all artificial lights, the Electric is one of the richest in violet rays: for this reason it is specially adapted for the purpose of enlarging, but a battery powerful enough to produce sufficient light is beyond the reach of the average amateur.

Limelight, in any of its various forms, is suitable. It gives an intense white light with but little heat, hence it is particularly adapted for the lantern, fig. 2 (described further on.) Either the blow-through or chamber jet may be employed with success.

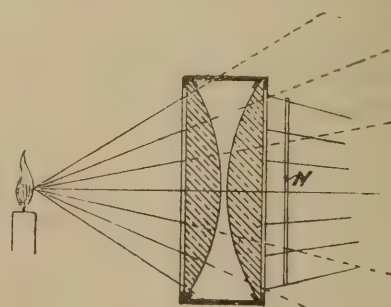
Magnesium should be used in a lamp capable of supplying the ribbon or wire automatically, various forms of which are to be met with. The light is very powerful, and the reduced price of magnesium should recommend it for trial.

The "Welsbach" and "Albo-carbon" are among the best forms of gaslight. The burner, if used in a lantern, must be mounted on a stand, and fed through an india-rubber tube.

Oil lamps, on account of their cheapness and simplicity, are used by the majority of amateurs. A burner of from 30 to 40 candle-power, of one of the various forms in the market, soldered to a tin reservoir, will answer admirably. Paraffin is a suitable oil to burn, its flame being rendered whiter by the addition of a small piece of camphor.

*The Condenser.*—

The form usually supplied for this work consists of two plano-convex lenses mounted with the convex faces inwards. Its





function is to collect rays of light, and bring them into use by refraction, as demonstrated by fig. 1. Few of these rays would pass through the negative N, if allowed to proceed in the direction of their propagation, as shown by the dotted lines.

*Lenses.*—As to the lens employed, it should preferably be a doublet, but the one used to take the original negative will serve very well to enlarge it. Should it be a single lens, the convex face must be turned towards the negative.

If with the apparatus fig. 6 (described later on), a quarter-plate negative is to be enlarged, a quarter-plate lens may be used for convenience, but not necessarily, since if one of say 11 inch focus were used for both whole-plates and quarter-plates alike, it would necessitate the box being made considerably longer than if 11 inch and 5 inch lenses were used respectively; this can be proved by the following rule, which is an easy way of finding the relative distance from lens to negative, and from lens to easel or other focussing screen.

$P$  = lens to negative.  $f$  = focal length of lens.

$Q$  = lens to easel.  $n$  = No. of diameters to be enlarged.

then  $P = f + \frac{f}{n}$ , and  $Q = (n + 1) f$ .

A very handy table is given in the "British Journal Almanac," which saves the trouble of working out the above.

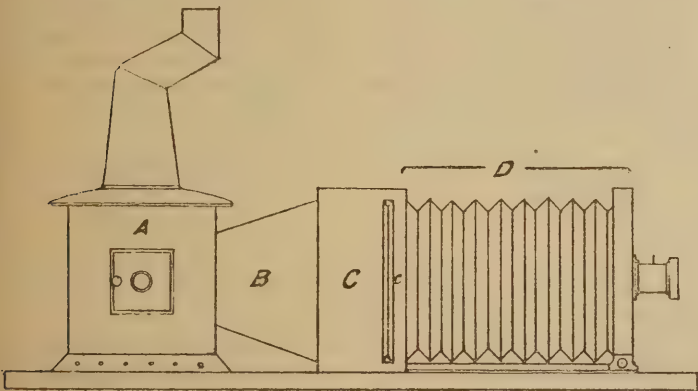
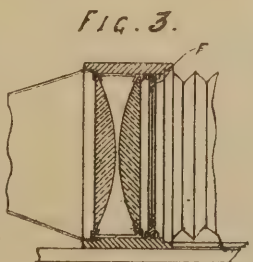


FIG. 2.

It will be found in practice, that with a doublet, but little sharpness will be gained by stopping down, and it has the disadvantage of considerably lengthening the time of exposure.

*The Lantern.*—Fig. 2 shows in principle the apparatus generally used for enlarging by artificial light; it consists of a lantern or box, A, strongly made, to contain the light. It must be capable of withstanding considerable heat, and at the same time must not allow any light to escape, with the exception of that transmitted through the negative. B is a funnel of japanned tin or other material, connecting the body of the lantern with C; it encloses the cone of rays used to illuminate the negative. C is a box containing the condenser and negative holder, shown in section, fig. 3. The holder is inserted in the slot shown at c, fig. 2, and is close to the condenser; it should be rebated deeply enough to take carriers for smaller size negatives, fig. 4. D is in all respects similar to an ordinary camera with baseboard, rising front, etc.; in fact, an ordinary camera may be used, if an

SECTION THRO' C.  
(fig. 2.)

arrangement be provided for focussing from the front. It need not be a bellows body; two wooden tubes to slide one within the other will answer just as well.

This form being intended for use with an easel, has the advantage of allowing the enlargement to be "dodged" dur-

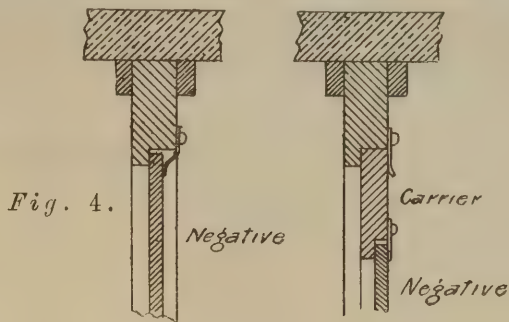


Fig. 4.

DETAIL AT F. (fig 3)

ing the exposure, by letting the shadow from a disc of cardboard fall on the darker parts of the picture, taking care to keep it constantly moving.

*The Easel.* may be similar to that shown in the sketch, fig. 5. A light frame runs in grooves as shown; it should be rebated to take two pieces of glass, one sheet and the other ground, which are held in position by small clips. After focussing on the ground-glass, the bromide paper is inserted between the two thicknesses and the exposure made. It should be capable of adjustment vertically, by means of the slot, a, and clamping screw, b. This will be found a great improvement upon the old method of pinning the paper on to a board.

Where it is required to enlarge up to a specified size, from any negative smaller than that size, a camera may be very cheaply constructed, as shown in fig. 6.

Two wooden tubes, which can be considerably extended, are made to slide one within the other. A is the negative holder similar to the one already described. B is a partition sliding in the tube, to carry the lens, which is mounted so as to slide up and down. C is a dark slide of the required size; by drawing the shutter it can be made to answer as a focussing screen, by inserting the two pieces of glass as described for the easel. This camera is equally adapted for daylight, by substituting a mirror at 45° for the lamp and condenser. Its chief drawback is that the sensitive paper being enclosed, does not allow of "dodging" during the exposure. In making apparatus of any kind it will be found of great assistance if drawings are made, to a large scale, of all the parts. They give a basis to work upon, and by their aid one is enabled to see that ideas are feasible before putting them into practice.

*Bromide Paper.*—There are several brands of bromide

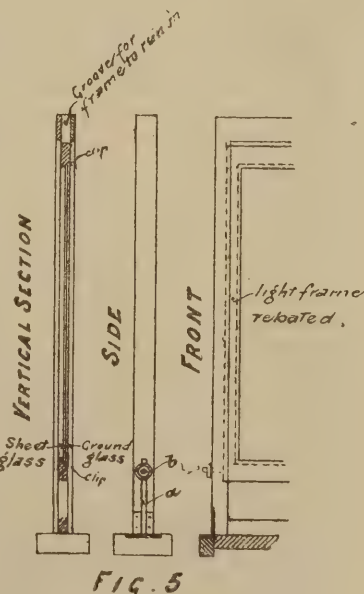


FIG. 5



paper in the market, most of which will by careful use give satisfactory results. It is usually sent out in three grades, A, B, C, smooth, medium, and rough respectively, to suit different subjects. Most of the brands can be manipulated in yellow light with perfect safety.

*Routine.*—Put a negative in the holder, film towards the lens, and roughly adjust the lens to the distances found by the table before alluded to; light the lamp, and place it in such a position that the image of the flame formed by the

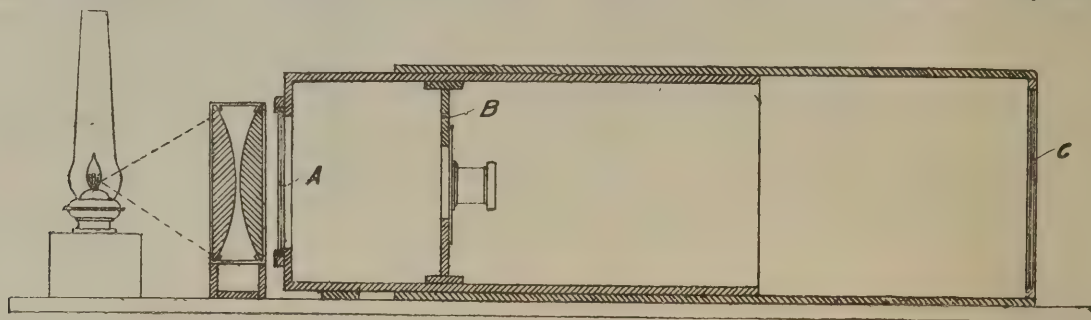


FIG 6

condenser may fall at the optical centre of the lens; then focus the enlargement accurately and cap the lens, insert the bromide paper by yellow light, and expose. As to the length of exposure, experience is the best actinometer; if any doubt is felt as to the time required, expose and develop a small strip of paper on that part of the picture containing the greatest contrasts; regulating subsequent exposure by the result.

*Negatives* for enlarging should be well defined, with perhaps a slight tendency to thinness. Weak negatives may be covered with ground-glass; if too dense, reduce with a few drops of a saturated solution of ferricyanide of potassium to the ordinary fixing solution. Thin skies, if there are no clouds, should be painted out or masked with orange paper.

*Vignettes* can be obtained by putting a vignetting glass in front of the negative, or, where an easel is used, by cutting a suitable aperture in cardboard and allowing the rays to pass through it, moving the card to and fro between the lens and easel during the exposure.

*Clouds* are introduced by making a mask to cover the landscape part of the negative. Such a mask may be cut out of orange paper; it should follow a line parallel to the sky line, but a trifle within the margin. Paste it on a clean negative glass, and insert in the holder with a suitable cloud negative; expose, remembering that a shorter time is required than that necessary for the landscape; remove it, and place the other negative in its place, taking care that it occupies exactly the same position. Complete the exposure; it will then be found on development the clouds and landscape come up simultaneously.

*Development.*—*Dishes* for this purpose may be made very cheaply out of Willesden paper. A rectangular piece of the required size is first of all folded, as shown by the dotted lines (fig. 7), after which it should be ironed on both sides with a hot iron and paraffin wax; the sides are then turned up, and the corners held with small brass clips—a thin piece of wood cemented to the bottom to keep it rigid, completes a serviceable tray.

Pyro, ferrous oxalate, or hydroquinone may be used for development. The first, however, I cannot recommend, as

it is very liable to stain. When high lights are valuable, use ferrous oxalate: if they require toning down, hydroquinone will be serviceable. With the latter there is a tendency to yield mealy prints with certain subjects, or I should say negatives, perhaps, which is objectionable. Do not use a developer for bromide paper too strong; far better and softer results can be obtained by considerably diluting the formulæ generally recommended. Both the oxalate and hydroquinone developers may be used several

times, adding a little freshly-mixed should they show signs of weakening.

*Ferrous Oxalate.*—The following gives good results:—No. 1, saturated solution of oxalate of potash. Half a pound of the salt will make a pint. When dissolved, add a few drops of a saturated solution of citric or oxalic acid, until it slightly reddens litmus paper. Use distilled water for the solution, or the lime will be precipitated.

No. 2.			
Granulated sulphate of iron	..	..	19½ drms.
Citric acid	..	..	18 grs.
Water	..	..	6 ozs.

No. 3.  
10 per cent. solution of bromide potassium.

These will all keep well if tightly stoppered.

For a normal developer, add one part of No. 2 to six or eight parts of No. 1, according to subject and brand of paper, and half minim of No. 3, to the ounce. Be careful to add in the order named, or the developer will be rendered useless from the precipitate of ferrous oxalate. If a vigorous print is desired, use a developer strong in iron and oxalate. If contrasts require subduing, add one part of iron to five or six parts of the oxalate, and dilute with a quarter of its bulk of water. *Expose fully*, and keep development well in hand, adding bromide or water to check over-exposure. In bad cases, pour off the developer and flood the print with water for a time, then proceed, after draining off the water, with a developer which has been used several times. But little can be done with under-exposure: painting the weaker portions with a strong developer may help a little, but a far better plan is to obtain another exposure. After development and before washing, flood the print with a weak solution of acetic acid (one drachm to a quart of water). This prevents the iron depositing in the pores of the paper and degrading the high lights. Rinse well and fix, in hypo., 3 ozs., water, 20 ozs.; leave the print at least a quarter of an hour, then wash under running water for an hour, and hang up to dry.

*Hydroquinone.*—Make up the following for stock solutions:—

No. 1.			
Hydroquinone	..	..	80 grs.
Sulphite soda	..	..	1 oz.
Bromide potass.	..	..	15 grs.
Water	..	..	10 ozs.

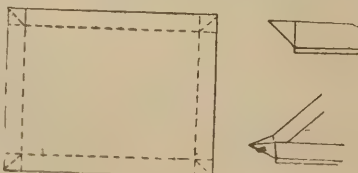


FIG 7



## No. 2.

Hydrate potash .. .. .	$\frac{1}{2}$ oz.
Water .. .. .	7 $\frac{1}{2}$ ozs.

Equal to 4 grs. hydrate potash to the drachm of solution.

For a normal developer, take one part of No. 1 and dilute with three parts of water, and begin with, say,  $\frac{1}{2}$  drm. of No. 2 to every ounce of the above; add more of No. 2 as required up to 1 drm. to the ounce. To get vigour, increase the hydroquinone. Softness can be obtained by exposing fully, diluting No. 1 with four or more parts of water, and using but little alkali. Over-exposure should be checked by adding water to the developer, not bromide; in extreme cases by flooding with water and proceeding with an old developer, as recommended for ferrous oxalate. For under-exposure, bring the alkali to full strength at once, but *keep down the hydroquinone*, or chalkiness will result; rinse well, and fix in hypo, 3 ozs., water, 20 ozs., then wash under running water for an hour, and hang up to dry.

As an alkali I prefer caustic potash to carbonate of soda or potash; it is less liable to stain, and seems to possess more power. Some object to it on account of its frilling properties, but there should be no difficulty with it if used consistently.

The tones given by the foregoing developers can be varied from black and whites, to greys and blue blacks, according to the exposure and strengths used.

The following formula for warm tones is given by the Eastman Company for their transferotype paper, but I find that it answers equally well with Fry's and the Ilford.

## No. I.

Ferricyanide of potass .. .. .	100 grs.
Water .. .. .	24 ozs.

## No. II.

Nitrate uranium .. .. .	100 grs.
Water .. .. .	24 ozs.

Tone in equal parts of the above, then *wash thoroughly*, and immerse for five minutes in hypo 3 ozs., water 16 ozs. The washing between the foregoing operations must be thorough; if any trace of the ferricyanide of potassium is left in, the print when put into the hypo will be reduced. Various shades of red can be obtained by this method according to the time it is left in the toning solution. Finally, the print is well washed and hung up to dry. For rich brown tones, the Company recommend leaving the print in the toning solution only until it commences to turn colour, and then immersing it, for a short time, in a weak solution of alum, after which it is washed, immersed in the hypo bath, and washed finally under running water.

Bromide prints may be reduced by the ferricyanide of potassium and hypo as recommended for negatives. Chloride of lime is not altogether satisfactory, since it is difficult to arrest its action, which continues for a time, although the print may have been put under running water.

Enlargements may be mounted with dextrine or preferably starch; an india-tinted mount with plate-sunk margin adds considerably to their appearance; they should be mounted dry and put under considerable pressure.

If necessary, they can be worked up with crayon or lamp-black (not indian ink), which will match the tones perfectly.

CATALOGUE.—Messrs. G. W. Wilson and Co. send us a condensed list of their lantern slides, which gives particulars of sets ranging from 12s. to £4 and upwards. The firm will send post free on application, their general catalogue of over 12,000 views, any of which can be had to order as a lantern slide. The excellence of this firm's work is known all over the world.

## Science Notes.

THE chief point of the lamp for enlarging without the use of a condenser, invented by Mr. J. C. Shenstone, of Colchester, appears to consist in the power of *changing* an oil-lamp (by the aid of which the picture is focussed) for a spirit-lamp into which a magnesium ribbon can be "fed," and by the light of which the image is produced. A piece of ground-glass is used to diffuse the magnesium light.

Mr. E. L. Trouvelot (the Belgian astronomer) has lately published three pamphlets on the application of photography to the study of electrical phenomena. He believes that his results prove that the duration of the lightning flash is far from being as instantaneous as it is generally thought to be.

The riverside inns described in an article (illustrated) in the *Art Journal* for August as existing at Wapping, Shadwell, etc., below London Bridge, make us long to visit the district with a hand-camera. Here are the "Wapping Old Stairs," of which Dibdin sung, and Limehouse Hole, where "Rogue Riderhood" lived. Verily, we agree with Mr. W. Adcock that Londoners are to be envied for the plethora of photographic material which lies in their midst, but which they so largely ignore.

Messrs. Blackie, of Glasgow, have just published a fine series of photogravures from Turner's *Liber Studiorum*, intended specially for the use of art students.

Every photographer should read the capital article by Du Maurier on "The Illustrating of Books," in the *Magazine of Art* for the current month. This famous worker repeats what we must all have felt again and again: "But for my own taste I infinitely prefer the scratchy pen-and-ink designs, which give just the essence of what one most wishes to see, and leave out everything else; and then, when the drawings are duly 'processed' and printed, no interpreter comes between (the artist) and myself, no middleman." That is one great function of photography; it abolishes the "interpreter," and brings us face to face with a man's work, or even with Nature herself.

There is a certain amount of terror in a section of the art-world at the continued improvements in the process of photogravure. The *Magazine of Art* plainly states that it is impossible for anyone to distinguish between a true etching and a "mechanical" process plate. The photo-engravers are "able by their mechanical contrivances to get a perfect *fac simile*." We agree that the name "etching" should not be used for these reproductions, nor should their producers be called "etchers" (though no less an authority than Mr. Hamerton would so designate them), but we rejoice that the perfection of this "process" work is now admitted, for again we "do away with the middleman," and we so cheapen the finished product that it is within the reach of all.

The story now going the round of the papers, as to the boy who photographed his class-master in the act of whipping a fellow-pupil, with cane raised high above his head (the rules of the school not permitting the sacred instrument to be elevated higher than the elbow), thereby "proving his case" before the head-master, but earning for himself at the same time 400 lines for playing in school, is, we are afraid, too good to be true. There are few school class-rooms light enough to permit of the successful use of the detective camera.

Mr. Elliot Stock has produced a small edition of Dickens' famous "Christmas Carol," photographed direct from the original manuscript, which contains numerous erasures and corrections. It will be issued to subscribers only.

Royal charters of incorporation for learned societies were until lately very expensive articles, costing about £500 to obtain; but it appears that the fees have lately been reduced, and that the Royal Historical Society, the Royal Statistical Society, and the Institute of Journalists have recently obtained such charters, through the Privy Council, at an outlay of from £100 to £150. Surely the Photographic Society of Great Britain ought to be a chartered society. Its members would then be "fellows," and the initials "F.R.P.S." would be some indication that the person to whose name they were appended was desirous to promote the interests of photography. F. G. S.

ADDRESSES WANTED.—Will Mr. T. Kidd kindly send on his address to the Editor, AM: PHOT:

LETTERS.—We have a letter for Mr. T. G. Parrott; will he forward his address? We have also two letters for Mr. Pain.



## Notes from the Liverpool Centre.

(By our District Editor.)

DURING the week Mr. H. P. Robinson has called in at a coffee meeting at the Liverpool Rooms. There was a good muster of members, and the "greatest of living landscape photographers" was made very welcome. The delight was mutual, Mr. Robinson expressing himself well pleased to meet so many workers connected with an important photographic society, and the Liverpool gentlemen being charmed with the instruction and the hints given by their illustrious guest. Mr. Robinson's developer—the same he has used during a long and eminently successful career—was much discussed. The formula is:—

A.									
Pyro	..	..	..	..	..	..	..	1	oz.
Citric acid	..	..	..	..	..	..	..	40	grains.
Water	..	..	..	..	..	..	..	7½	ozs.
B.									
Bromide potassium	..	..	..	..	..	..	..	120	grains.
Water	..	..	..	..	..	..	..	7	ozs.
Ammonia '880	..	..	..	..	..	..	..	1	oz.

Take 3 ozs. of water, and add 1 drm. each of A and B.

In effect Mr. Robinson said of this developer, "I am not an experimenter; I'm a practical worker. I have used the formula I have given you for a large number of years. I cannot too often repeat this: it is the very best developer I know. My opinion in regard to it has been confirmed in a thousand different ways." Mr. Christian and several other gentlemen spoke eulogistically of Mr. Robinson and his work.

Accounts of the interest taken in the '91 Exhibition are very flattering. Competition is promised from all over the United kingdom, the colonies, and abroad. Schedules, conditions, application forms, etc., printed in French and German, are already in distribution on the Continent.

Next week, in all probability, I shall have some interesting details to give of a series of experiments being made by Mr. J. A. Sinclair, into the cause of "fogging" through changing plates in a supposed reliable changing tent—a tent specially manufactured, and now on the market.

At the next meeting of the Walton Society, the members will continue to exchange individual experiences in the pursuit of the photographic art.

This week the Liverpool Association meets for the eighth ordinary meeting this year. There is a lot of business on the agenda paper. On Saturday the members and friends of the society go for a full day's excursion to Haddon Hall. Special train and suitable arrangements for refreshments. Mr. William Tomkinson has the excursion in hand.

**HOSPITAL ALBUMS.**—Photographs have been received from Mr. F. Hoare, Cirencester; Mr. Geo. J. Jones, Malton; Mr. Edward J. Jackson.

Mr. E. G. PLATT (Birkbeck Road, Ridley Road, High Street, Kingsland, N.E.), better known as the "amateur's friend," has bought the extensive plant and machinery of Messrs. Box Brothers, of Old Ford, and has made very considerable extension to his premises. He is able to offer special goods at low prices, racks, pinions, all kind of screws required in camera manufacture, flanges, adaptors, bellows, tents, view meters, finders, etc. To all amateur mechanics Mr. Platt can offer assistance, and will work out specially designed apparatus of any kind.

**SUCCESS OF AN AMATEUR PHOTOGRAPHER.**—Mr. R. Hyde writes:—"I am happy to inform you that one of your regular subscribers, viz., myself, has been fortunate enough to win the silver medal (first prize) for amateur photography at the Home Industries Exhibition, in connection with the National Co-operative Festival held at the Crystal Palace last week. In the professional class, Mr. E. Buckley, of Oldham, has secured the silver medal. It is rather a coincidence that Mr. Buckley and I gained the first awards last year in our respective classes. I have pleasure in acknowledging my indebtedness to the instruction gained from the AMATEUR PHOTOGRAPHER since I commenced operations two years ago, and although the glamour of the first love has worn off, I still look out with pleasure on a Friday morning for the AMATEUR PHOTOGRAPHER."

## Holiday Resorts and Photographic Haunts.

## A SHORT VACATION AT VENTNOR.

By "A. M."

FINDING myself with two weeks' leave and a corresponding amount of salary in advance, I took train from Waterloo to Bournemouth. I spent five very pleasant days there, with some friends, and exposed about a dozen plates. On the following morning I embarked from Bournemouth for Ventnor on the commodious passenger steamer *Monarch*, in delightful weather, and landed in this photographers' paradise about 12.30 p.m., after a most enjoyable trip. By the way, those who carry hand-cameras can just now get a splendid shot at the stranded vessel *Irex*, off the Needles, south side. I spent the afternoon prospecting in the neighbourhood of the town and cliffs. Next morning the sun rose to show an almost cloudless sky; I was not therefore long in getting out my kit, which consisted of half-plate camera, with ordinary and wide-angle doublets, and started on a view of the town, etc., from the east cliffs, at 7 a.m. A good view can also be had, early in the morning, from between the houses in Church Road. The "Royal Hotel," a little farther along the same road, is worth a plate; in the morning this requires a wide-angle lens. About a mile west of the town, along the cliff is Steephill Cove, a most charming picture, taken from the east side in the morning; rustic cottages, a few old boats etc., backed by rugged cliffs and boulders. The cliff path, which keeps close to the edge, extends several miles west of Ventnor, and many good views may be had in the afternoon looking towards Ventnor. My next jaunt was to the Landslip, through the east end of the town, and the village of Bonchurch, then turning to the right on to the cliffs, a climb of about a mile, brings us to this unique spot. Here we have the ground literally strewn with moss-covered boulders, from a few pounds to some tons in weight, between which stand numberless trees making a perfect wood, the whole covered with a dense and beautifully fine undergrowth. I was fortunate to find a bright sun penetrating the foliage in countless places. I should have liked to expose a dozen plates here, but could not spare them. Almost any time between ten and four will suit.

Another lovely spot within easy reach is Shanklin Chine. The best thing to do is to take an early train out of Ventnor, and start in the Chine about half-past nine or ten on a sunny morning, and then to walk back over the cliffs. Then a half-dozen or so plates should be taken to Bonchurch, starting, say, at ten o'clock. First the pond in the village should be taken, looking west; then proceed to the old church at the end of the village, which can be taken nicely from the south-west about eleven o'clock, and makes a charming picture, with its nicely kept ground; here one may see the graves of William Adams, author of the "Shadow of the Cross," and of John Stirling, whose biography was written by Carlyle. On returning through the village the pond should be taken again, looking east, about one o'clock.

About mid-day one or two views of the town may be taken from the pier; these are best done with the shutter, perhaps. Not less than six plates should be taken to Blackgang Chine, which may be reached by coach drive, very reasonably, walking back. One or two plates should be saved for the road on the return journey. Speaking from my experience here during ten days, I think for a two weeks' photographic holiday, Ventnor, as a centre, would be hard to beat. At least five or six dozen plates could be profitably exposed within a radius of seven miles from the town, including several pretty villages which I have not mentioned here simply because I have not had time to visit them. A tour can be made on foot to Appuldurcombe and Godshill with advantage. Luccombe Chine, between Bonchurch and Shanklin, is worth a visit and several plates, before noon; it is reached by a steep path, which leaves the direct path to Shanklin just before you get in the thick of the Landslip.

I would advise visitors who use Ilford plates, to bring all they require, as there are none in the town. Mr. C. A. Smith, chemist, 76, High Street, Ventnor, stocks Marion's plates and materials.

There is a good pier and the usual sea-side amusements. The best I can wish for any brother amateur who may visit Ventnor this summer is that he may have as good weather as I have had; I have exposed four and a half dozen plates, and I do not think I have removed the cap once without the sun shining.



## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BATH PHOT. SOC.**—Last Thursday's outing of this Society was very well attended. The excursion party left the city about noon in a four-in-hand brake, taking the Wells Road route, through picturesque Midford to Norton St. Philip. Upon arrival at Norton, nearly a score of cameras might have been seen quickly ranged in line for views of the quaint "Old George Inn," an ancient hostelry, said to have sheltered Charles one night and Cromwell the next. Having visited the church and exposed plates on the surroundings, a start was made for Bradford-on-Avon, passing Farleigh Castle upon the road. The "Swan" hotel, Bradford, was reached soon after three p.m., and a move at once made for the Duke's, or Kingston House, a splendid mansion erected in the seventeenth century for the Duke of Kingston. Mr. Frederick Shune, F.S.A., in a paper read before the members of the Royal Archaeological Institute, describes the style of the buildings as transitional, between Tudor and Palladian. The front (facing south) is divided into two stories with attics in the gables. The windows are in beautiful proportion with the stone mullions, and at first sight appear to cover the whole front. The present owner, Mr. Moulton, received the party, and gave every facility to photograph within and without the premises. A capital tea was served at five p.m., and the return journey was made through Bradford to Belcombe-Brook, Winsley, Limpley Stoke, and Claverton, the city of Bath being reached shortly before nine p.m.

**BIRMINGHAM PHOT. SOC.**—The last half-day excursion of the above society took place on Saturday, the 23rd inst., to Lichfield, under the leadership of Mr. A. J. Leeson. The light of the afternoon was almost perfect for photography, and nearly 150 plates were exposed by the party, which was the largest turn out of the season. The interior and exterior of the Cathedral made some charming architectural pictures, while St. Chad's Church and some old picturesque cottages near the reservoir, together with a very fine rainbow, which formed a perfect arc, found sufficient employment till the shades of night came on.

**BLACKBURN AND DISTRICT PHOT. SOC.**—On the 15th inst. Mr. Orrell gave an excellent paper on "Development for Amateurs," followed by a practical demonstration. The paper was much appreciated. Several prints were handed round for criticism. On Monday, September 8th, the members will make an excursion to Bolton Abbey jointly with the Burnley Society.

**CROYDON CAMERA CLUB.**—A very interesting competition between members came off on Saturday, 23rd August, at Merstham. The conditions, which are likely to be useful to other societies, were, in brief, as follows:—Competitors were obliged to expose four plates, neither more nor less. The resulting prints will be judged by Mr. Th. Maurice Page, the well-known landscape artist, for artistic merit, for which a maximum of sixteen marks per set of four prints will be attainable. Mr. M. Plimmer, one of the leading professional photographers in Croydon, will similarly award a maximum of sixteen marks for technical excellence, for which purpose both prints and negatives will be inspected. The prize goes to the set of prints and negatives receiving the highest number of marks. The chief novelty of the

competition lies in the fact that the competitors themselves furnish the prize, which consists of the complete collection of prints sent in for adjudication. The attendance was very satisfactory, and the regulation number of plates was exposed. The new premises recently acquired at 96, George Street, are giving great satisfaction to members, the dark-room being in constant use, even by those who have efficient dark-rooms at their own houses. The meeting room is well supplied with all the weekly and other technical journals, and the library is still growing. All the fittings and furniture have been contributed by members without the club having to spend a penny from the funds in the hands of the Treasurer. It is impossible to mention all the names of those who have helped with labour or fittings, but Mr. G. R. White deserves special commendation for giving the sinks and all the other apparatus for the dark-room, and for himself, unaided by the much-dreaded plumber, making all the connections with gas and water supplies and otherwise completing the fitting up of the developing room.

**SPEN VALLEY PHOT. SOC.**—The August meeting of this society was held at Cleckheaton on the 12th inst. Dr. Farrow, the President, presided. One new member was admitted. Mr. A. Cooper read a very amusing and instructive paper on "Photographic Gleanings," and demonstrated the use of the burnisher. His paper, as the title implied, was generally a treatise on various features of the photographic art to which not much importance is attached as a rule; but his reference to the keeping properties of the borax toning bath made a great impression upon the meeting. Contrary to orthodox belief, he asserted that the bath would keep—and keep in good order—and that he was at present using a bath which had been made up about two years. He had, of course, found it necessary to add a little gold frequently, and had on one occasion replenished the borax, but he believed that by keeping the bath there was a great saving of material and time, and that it worked even better than a freshly-made one. An interesting discussion followed upon this point, in the course of which the President suggested that some of the members should test the keeping properties of the bath, and prove whether or not the gold precipitated by using it a second or third time without adding more gold. Since the meeting this experiment has been tried and found to work satisfactorily.

**SHEFFIELD AND DISTRICT OPTICAL LANTERN SOCIETY.**—An ordinary meeting of the above society was held on Wednesday the 20th inst., Dr. Manton presiding. A large amount of members' work was on view, including pictures of Norway by Mr. Mottershaw, slides of Morecambe by Mr. Woodhouse, and a number of seascapes, taken from the deck of a Scarborough steamer, by Dr. Manton. Mr. Slater sent an album full of views taken during the recent summer excursions. It was decided to open the winter session with a lantern evening.

**NON-ACTINIC LIGHT.**—The expedient of covering a window with a fluorescent solution of quinine has not proved successful, but Dr. Liesegang, in the *Photo Archiv*, mentions a method which answers all purposes. An aqueous solution of three-parts green chloride of nickel and one part red chloride of cobalt is quite colourless by transmitted light, and quite clear when dilute. The two colours are complementary and completely neutralise each other. Hence the light passing through the mixed solution has no effect upon the salts of silver, for, though quite white, it is perfectly non-actinic, and does not any longer affect the sensitive film.

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Cornwall Polytechnic Soc: ... ..	Falmouth.	—	—	{ E. Kitto, Observatory, Falmouth. W. Brooks, Laurel Villa, Reigate.
Phot. Soc. of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
.....	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Edinburgh Phot. Soc: ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Phot. Soc. of India ... ..	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor... ..	Ventnor.	Jan. —.	—	J. G. Livesay, Cromartie House, Ventnor.
Liverpool Am: Phot. Assoc: ... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Vienna Club of Am: Phot: ... ..	Vienna.	Apr. 30.	May 31.	Carl Srna, VII., Stifftgasse 1, Vienna.

\* English and European exhibits should be despatched not later than Oct. 1st.



How IT'S DONE IN AMERICA.—I also stopped to see what was coming. The smaller of the two men, of medium height, seemingly about twenty-five years of age, faultlessly dressed in silk pongee coat, russet shoes, silk shirt, and light pants, with a bright crimson silk sash around his waist, turned to his companion—footman, lackey, or servant, call him what you will, who rejoiced in a full livery from cockade on his hat down to his boots—and, pointing to the old limekiln, said with a drawl: "Jeems!" "Yes, s'r." "Set up." "Yes, s'r," every "Yes, s'r" being followed by respectfully raising his hand to the rim of his hat. Well, what was my surprise when I saw the footman bring out from under the carriage seat a photographic outfit, all of English make; first came the mahogany tripod, silver-tipped; next the camera, also silver-mounted; then the battery of lenses. After the proper one was selected by the master, the latter

simply pointed to the limekiln. The footman answered with a respectful salute, took off his hat, and stuck his head under the silk velvet focussing cloth; after moving the camera several times, when at last a satisfactory view was obtained on the ground-glass, he turned to the master, and with a salute said, "Sharp, sir?" The former, who had so far stood listless by, now put his head under the velvet: "Jeems"—"Yes, s'r"—"Expose"—"Yes, s'r." So the servant put in the plateholder, adjusted the stop, and deferentially handed the bulb to the master, and drew the slide; then, touching his hat, said, "All ready, sir," when the other simply pressed the bulb: the photograph was taken, and the servant returned the slide, took out his pencil, touching his hat to signify that he was ready; the master drawled out, "Ruins of Old Fort from the Revolution."—Extract from *American Journal of Photography*.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4107. **Willesden Paper.**—I have a sheet of Willesden cardboard. How can I convert this into developing trays for bromide enlargements?—S. J.

4108. **Bournemouth.**—I am about to ride down on my Safety to the above town from Gloucester. Could any reader give me the most interesting route, and the best photographic bits round Bournemouth?—GLOSTER.

4109. **Rapid Doublet.**—I use a Ross rapid symmetrical of 6 in. focus for 5 by 4 plates. The six stops supplied run from f/9 to f/30, and are marked 0, 1, 2, 3, 4, 5 respectively. Would a smaller stop, such as f/40, be useful? Again, does the back or front lens of a symmetrical doublet constitute a really good landscape lens, and if it does, how should the stops be arranged?—C. W. O.

4110. **New Eastman Films.**—Does anyone find that the glycerine bath, for preventing the films curling, affects the thorough drying of the film, or have they a tendency to become sticky in damp weather, and thus cause paper to adhere to them when printing?—H. H. W.

4111. **Stops.**—What are the respective numbers of the following stops? The largest is 1 inch diameter:—

No.	1	2	3	4	5
	1 in.	$\frac{3}{4}$ in.	$\frac{2}{3}$ in.	$\frac{1}{2}$ in.	$\frac{1}{4}$ in.

Whole-plate R.R.—STOPS.

4112. **Wray's Lens.**—As I am about to begin with a Wray's R.R. lens, half-plate, I should like to know if that make of lens is as good for portraiture as for landscapes? Would any amateur who uses one please send me a few specimens of portraits taken with the above lens for inspection? I will pay expenses, and return them immediately. Also a few hints as to lighting, exposure, and development for portraits?—A BEGINNER (address with Editor).

4113. **Intensifying.**—In intensifying a negative with bi-chloride of mercury, I did not notice, till too late, that on the solution (which had been some time made up) there was a sort of iridescent scum, some of which adhered to the film, and created a whitish opaque stain, which the subsequent immer-

sion in sulphite of soda and liberal washing have failed to remove. I shall be grateful for advice how to get rid of the stain without reducing the negative.—LUCIFER.

4114. **Aristotype Paper.**—Will "F. C. A.," who answered query 4072, or other reader, give instructions for making and using Fallowfield's toning bath for Aristotype paper, and state what tone it gives, and what washing is required?—S. J. BRADBURN.

4115. **Black Tones.**—Will some friend inform me fully how to get the black tone usually seen on most of the professional photographs seen exposed for sale in the town?—S. J. BRADBURN.

4116. **Stanley's Actinometer.**—Will some one kindly tell me how to use this? I got correct exposure on Ilford extra rapid plates, with f/7, in brilliant sunshine, at 10.30 a.m. The actinometer, held with its face to the sun, turned colour in 2 secs.; turned up to the sky, and shaded from direct rays of the sun, it "went" in 3 secs.; held horizontally by the side of camera lens it took 20 secs.; faced the opposite way and placed near the house being photographed, it showed 15 secs. Now which of these is to form my guide? In short, where and in what position ought the actinometer to be used, and what relation should exist between time of exposure and time the film turns colour in such position as may be recommended?—T.

4117. **Retina of the Human Eye, Photographs of.**—Have photographs ever been successfully taken of the retina of the human eye, and if so, by what means?—G. F. W.

4118. **Combined Toning and Fixing Bath.**—Why is it that a combined toning and fixing bath is generally recommended for gelatine emulsion papers, such as Aristotype, Obernetter, and Alpha? What special advantage have the combined over the separate baths?—A. D. FORT.

4119. **Blistering.**—Will some one kindly tell me how to prevent my prints blistering in fixing bath?—ALFRED RUSSELL.

4120. **International.**—Will some one tell me if the above camera (Lancaster's) is a good serviceable camera?—A. RUSSELL.

4121. **Black Paint.**—Can anyone give me a formula for a dead-black paint that will take to metal?—ARGENTUM.

4122. **Residue.**—I have a quantity of hypo solution, rich in silver. How can I recover the metal, or its oxide, or the bromide itself?—ARGENTUM.

4123. **Emulsion.**—I prepared some emulsion according to a formula in Hepworth's book; but owing to rather vague wording, I stewed it as usual. The result is an almost clear emulsion. Has the excess of ammonia dissolved the bromide, so that it has been removed by the alcohol used in washing? If not, how can I remedy the fault? I can get a picture, but it looks as though the bulk of bromide had been removed, or converted into a clear non-oxidisable substance, and is very thin, more like a ghost of a picture.—ARGENTUM.

4124. **Recovering Silver.**—What is the method of recovering silver from old films, paper cuttings, etc.?—ARGENTUM.

4125. **Mr. Robinson's Developer.**—I see Mr. H. P. Robinson's developer is the same as that given by Edwards with their Isochromatic plates. Would the addition of sulphite of soda have any other effect than that of a preservative?—A. F. V.

4126. **Toning.**—Will any amateur kindly tell me a good toning for the Ilford plates, as I do not understand the formula on the box? I use the following, but I find they tone a dirty-red. Can anyone tell me how I can get a good dark colour?—

Acetate of soda	...	...	20 grs.
Water	...	...	8 ozs.
Gold solution	...	...	1 drm.

	Fixing.	
Hypo of soda	...	$\frac{1}{2}$ lb.
Warm water	...	1 quart.
Liquor ammonia	...	20 drops.

—LEIGHTON.  
4127. **Aristotype Toning.**—Why do some prints tone a pink colour, and how can this be prevented?—JEZEEL.

## QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.

18th.—Nos. 4009, 4020, 4027, 4029.

25th.—Nos. 4038, 4045.

Aug. 1st.—No. 4054.

8th.—Nos. 4057, 4061, 4066.

15th.—No. 4076.

22nd.—Nos. 4086, 4089, 4090, 4091, 4093, 4096, 4100, 4102, 4103, 4104, 4105.

## ANSWERS.

3953. **Pigeon Photographing.**—Take the bird when feeding. Your lens will suit. Use the Mawson plate.—T. S. MAYNE.

3967. **Red Intensifier.**—The Uranium, obtained at Horne, Thornthwaite, and Woods.—T. S. MAYNE.

3968. **Fabric for Dark Tent.**—Red Turkey twill and black cotton sateen, obtainable from any draper. Sewing must not be machine, but double seam, hand-sewn.—T. S. MAYNE.

3969. **Trap for Sink.**—No doubt one named would suit, but wait your development until you return home. It was different in the days of wet collodion; then a tent was indispensable.—T. S. MAYNE.

3972. **Spectacle Lenses.**—I do not know of any special book on the subject. Have seen in trade catalogues particulars you wish (meagre only). Better consult some optician or dealer.—T. S. MAYNE.

3974. **Moon.**—View as described, try 2 minutes' full aperture Ilford ordinary; back the plate, non-actinic paper and glycerine.—T. S. MAYNE.

3975. **Boulogne.**—No difficulty with Customs over plates. Boarding houses, any number. Better arrange for bed and breakfast only, then dine in public café.—T. S. MAYNE.

3976. **Ostend.**—See 3975. Must decide yourself, of course, as regards convenience.—T. S. MAYNE.

3978. **Cornwall, Light in.**—Of course; good as any other part of the kingdom, but don't try hand-camera work just anywhere on dull days; f/11 and shutter half-speed you name should do on any good ordinary plates. For myself, I give preference to the Mawson plate.—T. S. MAYNE.

3983. **Best Camera.**—Of the two named, try the Facile. Gives very fair results, but don't expect any hand-camera to do everything.—T. S. MAYNE.

3987. **Aberystwith.**—Better take your plates with you, then you are certain not to get old stook. No scarcity of nice subjects. You can make Pontypool a starting-point for several day excursions.—T. S. MAYNE.

3991. **Shutter.**—Would give the preference to Lancaster's latest, the "See-Saw." The best one, half-plate, is 12s. 6d. It is also made at 7s. 6d.—T. S. MAYNE.

3994. **Bromide Paper.**—Hinton, Bedford Street, Covent Garden, has one of the best mountaints obtainable.—T. S. MAYNE.

3997. **Lynton.**—Hurst Castle is only a few miles off, also nice bits on the river. No public dark-room. Provide yourself with a dozen drawing pins. You can readily darken your bedroom for changing plates.—T. S. MAYNE.

4003. **Optimus Long-Extension Camera.**—Write Perken, Son, and Rayment, 99, Hatton Garden, London, E.C. Enclose stamped envelope.—T. S. MAYNE.

4004. **Obernether Paper, Toning Bath for.**—I have used this paper largely for past three years, and give decided preference to the regular toning bath given by Gotz, and using fresh hypo.—T. S. MAYNE.

4007. **Ferrous Oxalate Developer.**—Would advise "Learner" to adhere to the regular two-bottle formula.—T. S. MAYNE.

4013. **Eastman's Roller Films.**—Excellent results. No difficulty taking off a portion of the roll; a loss, however, of one or two inches takes place. Where portability is vital and essential, the films are a great boon. Bear in mind price is about double ordinary plates, also somewhat more difficult to



work; therefore, where portability is not an object, you should stick to the glass.—T. S. MAYNE.

4016. **Alpha Paper.**—Advise following the instructions given by the Ilford Co.—T. S. MAYNE.

4017. **Isle of Man.**—Exposure quick with R.R. lens, f/11; use shutter. Better take, also, single landscape lens, cap off and on.—T. S. MAYNE.

4021. **Windsor Castle.**—Interior, no; exterior, yes.—T. S. MAYNE.

4024. **Backing Plates.**—Non-actinic paper, attached with drop or two of glycerine, is the best method. Mawson and Swan supply ready prepared plates with non-actinic emulsion on back. The Mawson plate is very rapid and good. Have used them with every satisfaction.—T. S. MAYNE.

4025. **Toning Gelatine-Chloride Paper.**—See answer 4004. Fallowfield sells the ready prepared concentrated solution.—T. S. MAYNE.

4026. **North of Spain.**—Light brilliant, f/16, and your shutter quick. At this season San Sebastian is crowded. A good hand-camera would be a most useful portion of your outfit. At the principal hotel (English spoken) the windows overlook the bathing place.—T. S. MAYNE.

4031. **Brittany.**—You must take your plates with you. English sizes not stocked.—T. S. MAYNE.

4037. **Backing Plates.**—See 4024. The small quantity of glycerine will not do any harm.—T. S. MAYNE.

4042. **Optics.**—Obtain Dallmeyer's "Small Treatise on Lenses," 1s.—T. S. MAYNE.

4046. **Hockins' Lens** I have not used; but a neighbour tells me definition is excellent, and covers the edge of plate quite satisfactorily in every way.—T. S. MAYNE.

4048. **Developer for Shutter Exposures.**—Your lens, stop, and shutter all right. Cadett's plates I do not know. Possibly you do not push development far enough. One of the best snap-shot workers (Mr. Paul Lange) works mainly Ilford ordinary, and develops with washing soda and pyro, produces a yellowish but good printing negative. My choice is the Mawson plate, their own developer.—T. S. MAYNE.

4052. **Transparent Film.**—See answer 4013. Roll-holder will stand vibration. The workmanship of Eastman roll-holders and Kodaks can't be surpassed. Where portability is an essential, you can't do better. I have just ordered for a friend in Iceland, for whom glass would be impracticable, one of the new folding 7 by 5 Kodaks.—T. S. MAYNE.

4055. **Varnishing.**—By "opaltype" presume you mean ordinary opal positives, which require no varnishing. If not framed below glass the opal can be dusted without danger, using a soft silk handkerchief. Full directions given by makers of the opals. Ilford Company and Morgan and Kidd both good, and easily worked.—T. S. MAYNE.

4062. **Lens.**—Your lens should cover quarter-plate with f/11 or f/16, if lens is even moderately good. You must practice, and exercise patience.—T. S. MAYNE.

4065. **Intensifier.**—The sixpenny "Instructions to Beginners," published by Perken, Son, and Rayment, will give you full information. Thorough washing after the hypo and mercury indispensable to prevent stains.—T. S. MAYNE.

4068. **Leamington.**—Yes, a dealer's. Send 6d. to Editor, envelope marked *Dark-Rooms*, and you will receive introduction.—T. S. MAYNE.

4070. **Small Stop.**—When you want microscopic detail, and everything is perfectly still, no stir of foliage or wind, as exposure, of course, is prolonged.—T. S. MAYNE.

4071. **Switzerland.**—(1) Take your own plates; wrap up boxes in clothes, and put them in middle of portmanteau. (2) No trouble with Customs. (3) Full exposure for snow scenes. (4) In developing, use less pyro than usual to reduce contrasts. (5) One trouble is that white mountains and blue sky both come out white in prints. This can be surmounted by photographing by full moon (exposure one hour, focus day before), and possibly also by working late in the afternoon, but not in my small experience by isochromatic plates or yellow screen, either separately or together.—X.

4074. **Optical Contact.**—Use a roller squeegee, slow, steady pressure, placing sheet of white blotting paper on back of print.—T. S. MAYNE.

4080. **Italy.**—Write to Mr. W. P. Christian, Water Street, Liverpool. He has been there several seasons on photographic holidays.—T. S. MAYNE.

4083. **Windermere.**—No hotel dark-room. See 3997.—T. S. MAYNE.

4084. **Daguerreotype.**—John Harmer, Wick, Littlehampton, will make you a negative original size, and can also produce you an enlarged negative, his speciality. Mr. Harmer, last month, did satisfactorily a similar production for me from a valued positive. The renewing or cleaning of your positive is so delicate an operation, would not advise trying it, as you value your original.—T. S. MAYNE.

4085. **Abbeys, Photographing.**—No restriction to places named.—T. S. MAYNE.

4088. **Laverne's Detective Lens.**—This is a very good lens. It is a rectilinear of 5 in. focus, with a fixed stop of f/11. When fixed at 5 ins. from the plate, everything is in focus from 12 to 15 feet. I am sorry I don't happen to have any prints except in an album.—WUNT.

4092. **Flash-Light Paper.**—No good for photographic purposes.—T. S. MAYNE.

4094. **Yellow Stain on Negative.**—If simply a stain on a portion of negative, fear it will always be a stain; if negative entirely stained yellow, either with too much pyro or the washing soda developer, no fault. It will probably take longer to print, but should give softer result. See answer 4748.—T. S. MAYNE.

4094. **Yellow Stain on Negative.**—It may be removed by placing it in the following bath for a few minutes:—

Alum .. .. .	2 OZS.
Citric acid .. .. .	1 OZ.
Water .. .. .	1 pint.

—ALF. RUSSELL.

4095. **Instantaneous and Time Shutter.**—See answer 3991.—T. S. MAYNE.

4097. **Lens.**—Perken's rapid Buryscope is a first-class lens, and the Ilford ordinary plates, either with their own formulae or "Paul Lange's" washing soda and pyro formulae, as given in Ilford *Scraps*, should give you satisfaction.—T. S. MAYNE.

4098. **Watkins' Exposure Meter.**—By all means get one. Several trials on difficult subjects, with varying lights, have proved absolutely correct. The value of this cannot be over-estimated. I think it the most useful invention that has yet been produced, and absurdly cheap. Will answer enquiries if desired.—Isis.

4099. **Backing Plates.**—Archer and Sons, Lord Street, Liverpool, stock Mawson's "The Castle" and "The Mawson" plates, quarter and 5 by 4 sizes; ready backed with non-actinic paper for hand-cameras, only 3d. per dozen extra. Just what you want, easily removed, free from holes, dust, and grit.—T. S. MAYNE.

4101. **Lantern Slides.**—Get Griffiths' lantern-slide camera for half-plates, only 12s. 6d., always ready; has lens fixed, very simple; to be had from any dealer. Use Mawson's lantern plates, with Thomas' hydroquinone developer, full strength. The exposure is to daylight 1 to 3 mins., according to density of your negative. Archer and Sons, Lord Street, Liverpool, stock the above camera. Can be sent safely by parcel post, marked *fragile*.—T. S. MAYNE.

4106. **Complete Outfit.**—Consult advertisement columns, any dealer. If London is your residence, go to Fallowfield's, Charing Cross Road.—T. S. MAYNE.

## EDITORIAL

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED:AM:PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

FRANCIS G. SMART.—There is no charge.

J. J. JACKSON.—The photographs are acknowledged.

KATHLEEN.—We very much regret that we cannot trace the other photographs, nor can we call them to remembrance.

A. E. VENN.—A clever "skit," but it will be well to close the matter; it is much to be regretted they trouble about our business.

BARNSELEY.—Both are good shutters, the first mentioned is much thought of at the present time.

ANSWERS.—We cannot help you. Mr. Wall is not, we believe, now in England.

• SPEERO.—B is the best photograph. A the best tint, but neither of them good. In B you have a good model, and with practice and care, especially in printing and toning, you will ere long turn out some very fair work. The lighting of B is distinctly good.

T. H. W.—The second named is a first-class plate. Write to the makers; they have doubtless a formula specially suitable for their plates. Either plates are good for detective work.

LENS.—You cannot paint it out; we used the word "point."

W. B. CASSINGHAM, GLOUCESTER, G. A. SIMMONS, A. BROWN.—A detailed notice will be published next week.

RICHARD GILL.—A good all-round lens, and well worth the money.

J. MCC.—Thank you for calling our attention to the matter. You had better send the plate up to us, and, if you have it, the paper which you placed between the plates.

X. Y. Z.—A. We have repeatedly recommended this camera, and it is worth the money, AMATEUR PHOTOGRAPHER, Vol. xi., May 9th, page 337. Several excellent cameras of the "magazine" type have been noticed recently in our columns. Use an R.R. lens.

GEO. B. BISOT.—The photographs shall be re-

turned; we cannot fix a date, possibly it will not be issued.

J. W. WADE.—The blocks reached us safely, and will appear in the *Photographic Reporter*.

H. W. SHREWSBURY.—We do not understand your letter; when was the offer made?

FALCO.—You might write Messrs. Watkins and Osmond, 82, Ludgate Hill, E.C.; they are the advertisement agents for the journal in this country.

TALBOT and BAKER.—We have your letter, and have made a note of its contents in another column.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.O., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Air-Gun, etc.**—Will exchange Gem air-gun, darts and slugs, and little cash, for Lancaster's half-plate Marvel, complete, with stand.—G. Powell, 9, Ashton Old Road, Lower Openshaw, Manchester.

**"Amateur Photographer."**—AMATEUR PHOTOGRAPHER, vol. vii. from 176, and vols. viii. to xi., 124 numbers and indexes; 19s. 6d.—Smith, 26, Manor Park Road, East Finchley, Middlesex.

**Apparatus.**—Watson's Acme camera, half-plate, with aluminium turntable, six double backs, in strong canvas lock-up case, Watson's four-fold tripod, with one sliding joint, the whole in perfect condition, and but a few months old, Dallmeyer's 8½ by 6½ rapid rectilinear, Dallmeyer's 10 by 8 W.A. rectilinear, Dallmeyer's 5 by 4 portrait lens, Lyons' patent shutter, with adapter to fit Dallmeyer's rectilinear lens; price £20 the lot.—Address No. 74, AMATEUR PHOTOGRAPHER Office, 1, Creed Lane, London.

Dallmeyer's half-plate triple achromatic lens and stops, 45s.; Lancaster's large watch-pocket camera, with six slides, 25s., cost 40s.; Lancaster's new brass finder, 3s. 6d.; Lancaster's new leather-bound stand case, half-plate, 3s.; Alpenstock camera stand, half-plate, very light and portable, 8s. 6d.; Tylar's whirlpool washer, 5s.; three half-plate Tylar's metal dark slides, with protectors and adapter to half-plate Lancaster's Instantograph camera, 10s. 6d., cost 17s. 6d.; Tylar's Wonderful focussing chamber, 4s.; Chapman Jones' "Science and Practice of Photography," cloth, 2s. 6d.; 2s. Marion's cabinet Norser vignette, 1s. 6d.—F. W. Stedman, 76, High Street, Ashford, Kent.

**Burnisher.**—First-class powerful steel bar burnisher for cabinets, in good condition; 15s. 6d.—T., 52, Shillington Street, Battersea, S.W.

**Cameras, etc.**—Sands and Hunter's Tourist camera, three double backs, tripod and case, French, half-plate size, with carriers to take English half-plate, price £6.—65, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, E.O.

Lancaster's Instanto, quarter-plate, 5 by 4 R.R. lens, three backs, new; offers.—Smith, jun., 76, High Street, Wavertree.

Lancaster's quarter-plate International camera, complete, ash stand, one wood and three metal slides; 40s.—Butland, 8, Church Terrace, Penarth.

**Dark Slides.**—Three Tylar's half-plate metal dark slides, with adapter for Lancaster's Inter-



national; cost 15s., good condition, what offers?—Meadway, 354, Bethnal Green Road.

**Hand-Cameras.**—£6 Swinden and Earp's hand-camera, with sling case, condition as new, to take twenty quarters; cost £7 12s.—Young, 19, Lambourn Road, Clapham.

Griffiths' hand-camera; 18s., or exchange (photographic)—A. B., 22, Strickland Street, Newcastle-on-Tyne.

Facile camera, landscape lens, and finder; exchange for Rover pattern bicycle: approval.—Jordan, 18, Drapper's Road, Bermondsey, London.

**Hand-Cameras, etc.**—Shew's Eclipse French half-plate size, three double backs, instantaneous lens and shutter, view-finder, brand new; cost £8; price £6.—66, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, E.C.

Hand-camera, Facile pattern, for 12 quarter-plates, R.V. lens to focus, finder, polished black shutter, always set, £2; exchange whole-plate lens.—Lambert, The Bourne, Ware, Herts.

Luzo detective camera, square pictures, almost new, also Lancaster's 12 by 10 enlarging camera, with two porcelain dishes; the lot £4.—Walker, 102, Lexham Gardens, London.

**Lenses.**—Optimus 5 by 4 R.R., with diaphragms, perfect as new; 25s.—Montana, Blackheath, S.E. Dallmeyer's triple achromatic lens, 8 in. focus, covers half-plate splendidly, with diaphragms complete, perfect condition; £2 15s.—Montana, Blackheath, S.E.

New portrait lens, diaphragms, very rapid; 9s.—Rose Moore, Leigh, Lancashire.

Dallmeyer's quick-acting stereoscopic single lens, cost 40s., as new; price 25s.—Gamson, 77, Essex Road, Islington, London, N.

**Microscope, etc.**—Compound microscope, nearly new, rack and fine adjustment, two eyepieces, 1 in. and  $\frac{1}{2}$  in. object glasses, ball-joint condenser, live

box tweezers, test slides, etc., in mahogany case, lock and key (maker H. Anderson, London); what offers? or will exchange for good half-plate camera, lens, etc.; approval.—Ralph Woodruff, Faversham

**Organ.**—Splendid organ, two knee swells, 7 stops, £10 10s.; half exchange photographic apparatus.—2, Peter's Street, Dereham Road, Norwich.

**Outfit.**—Lancaster's 1890 half-plate Instantograph, lens, shutter, double dark slide, printing frames, dishes, vignette and cutting glasses, tri, od, new, 76s.; case, 8s. 6d.; deposit; approval.—Smith, 16, King Street, Wigan.

**"Science for All."**—Exchange five vols. "Science for All," complete (by Robert Brown, M.A., etc.), bound half calf, nearly new, with £1, for half-plate camera and rectilinear lens, good maker; approval.—H. Woodney, Carlisle, co. Louth.

**Sets.**—Whole-plate 1889 Instantograph, fitted with rapid rectifying lens, dark slide, carriers, tripod, good as new; list price £8 10s., take £5 10s., or separately.—N. S. Smith, Coleford, Gloucester.

Lancaster's half-plate Instantograph camera, three double backs, tripod, case, £4; Optimus 7 by 5 R.R. lens, 30s.; Thornton-Pickard time and instantaneous shutter, nearly new, 17s. 6d.—Dudin, 4, Fenchurch Street, E.C.

Magnificent half-plate camera (Stereoscopic Company), double extension, swing back, and all latest improvements, four double backs, £5 10s.; Burr's 7 $\frac{1}{2}$  by 4 $\frac{1}{2}$  R.R., with Newman's shutter, special and ordinary diaphragms, £3 10s.; folding tripod, new, 15s.—Montana, Blackheath, S.E.

Lancaster's 1890 half-plate Instantograph camera, dark-slide, tripod, fitted with rapid rectilinear  $f/8$  lens; cost 105s.; as new; bargain, 74s.—John Slade, Slad Road, Stroud.

Lancaster's half-plate International camera, single lens, shutter, one single and three-double slides, fitted with quarter-plate carriers, focussing glass and

cloth, and Thornton's tables, in well-made box, 10 by 8 by 10 $\frac{1}{2}$ , lock and key, hand and shoulder straps, with stand, all in good condition; £5 5s.—Thomas Minshall, 91, Lodge Street, Manchester.

On sale, a McKellen's half plate camera, complete with three double backs, tripod, and Laverne lens; will take £7 10s. for the lot; a bargain.—M., 40, Fitzroy Road, Regent's Park, London, N.W.

**Shutter.**—Sands and Hunter shutter; cost 45s., price 15s.—116, Denmark Hill, S.E.

**Studio.**—Studio or greenhouse, 12 ft. by 8 ft., nearly new; £3 10s.—8, Jefferson Street, Bromley-by-Bow.

## WANTED.

**Dark Slides.**—10 by 8 double slides, in good order; cheap for cash; approval.—John Hexterson, Hill Top Lodge, Ulverston.

**Enlarging Lantern.**—Enlarging lantern.—Particulars to Downing, 2, Cavendish Road, St. John's Wood.

**Hand-Cameras.**—Hand-camera, Shew's quarter-plate, with dark-slides, perfect.—C. Angell, 85, Seven Sisters Road, N.

Good hand-camera; exchange Christy's incubator, revolver, breechloader, setter, etc.—J. E. Thornburn, Bothel, Aspatia.

Shew's half-plate Eclipse hand-camera, standard pattern, with finder, and Eastman-Walker roller-holder; state condition, and send specification, price, and terms to—Lawret, Woodlands, Heaton, Bolton.

**Lens.**—Half-plate wide-angle lens, by Ross or any other good maker; will give in exchange full-size sale violin and a quantity of music, or will sell for 80s.; approval both ways.—Elphick, 57, Stonefield Road, Hastings.

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## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.....	Twelve Months, 10s. 10d.
POSTAL UNION .....	" 6s. 6d.....	" 13s. 0d.
INDIA, CHINA, ETC. ....	" 7s. 9d.....	" 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the **Amateur Photographer** are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the **Amateur Photographer** are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, **Amateur Photographer**, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, **Amateur Photographer**, 1, Creed Lane Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS of the AMATEUR PHOTOGRAPHER offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

INSTANTANEOUS PHOTOGRAPHS, ANIMALS, ETC. ... Sept. 14.

ENLARGEMENTS ... .. Oct. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors.

All photographs for any of the above competitions will be acknowledged in the columns of the AMATEUR PHOTOGRAPHER.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.

## "Amateur Photographer" Monthly Competitions.

No. 16.—INSTANTANEOUS PHOTOGRAPHS, ANIMALS, ETC.

Prizes—Silver and Bronze Medal with Ribbon and Clasp.

ONE PRINT ONLY. Must be sent in on or before the 14th September.

No. 17.—ENLARGEMENTS.

Four Prizes.—Two Silver and Two Bronze Medals with Ribbon and Clasp.

ONE PRINT ONLY. Must be sent in on or before the 1st October, to

THE EDITOR, "AMATEUR PHOTOGRAPHER," 1, CREED LANE, LONDON, E.C.

All photographs criticised, and several reproduced every month, in the

"PHOTOGRAPHIC REPORTER," PRICE ONE SHILLING.



# The AMATEUR PHOTOGRAPHER

phone No 1645  
Telegraphic Address: VINEY, LONDON  
Edited by CHARLES W. HASTINGS

VOL. XII. No. 309.]

FRIDAY, SEPTEMBER 5, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

A VERY interesting account of a visit of the members of the Louth Amateur Photographic Society to Theddlethorpe Marsh is given in the *Louth and North Lincolnshire Telegraph*. The excursion was very much marred by bad weather, but the article sets out what a field for work the Fenlands offer.

\* \* \* \*

THE fifty-eighth annual Exhibition of the Royal Cornwall Polytechnic Society has been held at Falmouth, and the photographic section was well up to the usual standard, many good photographs by both amateurs and professionals being shown. In another column we give an account of the exhibits and exhibition, which has been contributed by a gentleman well qualified to judge of the merits of the photographs on view. The exhibition closed on the 30th ultimo.

\* \* \* \*

MUCH success attended the loaning of lantern slides last season, and Mr. W. Clement Williams, himself an able worker in lantern slides, suggests quite a new departure, *i.e.*, "One-Man" Lantern Exhibitions to be loaned to societies through the agency of the AMATEUR PHOTOGRAPHER, and that the slides, say 100, shall be placed in our charge, and loaned for a small fee to all the photographic societies, so that a "one-man" lantern night a month might be established all over the country. We shall be only too pleased to do our part, and hope that the suggestions of Mr. Williams will be fully discussed in these columns. The other question, respecting the showing of lantern slides by competent persons for the benefit of hospitals or other charitable institutions, points out work that we believe many of our readers will heartily join in. We shall be very grateful for gifts of lantern slides to increase the stock we already have, and would remind our readers that sets of from four to twenty are of the most value.

In regard to the loaning of lantern slides for exhibition for charitable purposes, we have already a large number which can be had upon complying with our conditions, a copy of which will be sent to any one upon application. We have also a very fine biennial lantern, presented to us for this special work by Messrs. Perken, Son, and Rayment, which we will loan to responsible persons. It is desirable that application be made at as early a date as possible for the loan of either slides or lantern.

The whole subject of instruction and entertainment by means of the optical lantern is one in which the amateur photographer is able to help in many ways, and those only who have given "lantern shows" know the interest and pleasure taken by the audiences, young and old, in the beautiful pictures thrown upon the screen. With the introduction of occasional vocal or instrumental music, no more pleasant mode of spending an evening could be devised.

With regard to Mr. Williams' proposals, we trust some of the well-known and prominent workers will place in our hands sets of their slides for the benefit of all comers. The details of organisation can be arranged without difficulty, and will be another link in the chain that unites us to our subscribers in the work done for the benefit of the public.

\* \* \* \*

It is intended to form a photographic society at Torquay. A provisional committee has been formed, and Mr. George Edwards has been appointed Honorary Secretary. If the beautiful in nature acts as a temptation for ladies and gentlemen to take up photography and form societies, Torquay should have had an army of photographers and a society years ago. We shall, of course, note the progress of the efforts being made to form the society with some interest.

\* \* \* \*

SOME short time since a correspondent wrote us rather angrily about want of accommodation at the Lizard. We have received a letter from the Manager of "Polurrian House," Mullion, near the Lizard. He has fitted up a dark-room for the use of photographers, and has asked us to place the same upon our register, which has been done. Mullion is on the south-west coast of Cornwall, about five miles from the Lizard, and the beautiful Kynance Cove is in the parish of Mullion. Next season the proprietor of Polurrian House intends to stock plates. The house is two miles from the nearest telegraph station.

In order to show the extent of our organisation with regard to dark-rooms, we would like to state that this week's mail brought us a request from a firm in Melbourne to have their dark-room added to our register, the same firm giving us permission to introduce photographers to use their dark-room at Adelaide.

We have now upon our register some 400 or 500 dark-rooms, not only in the United Kingdom, but all over



the world. Next season we shall hope still further to augment the list. The applications for their use is continuous, and so complete is the organisation that we have hardly ever received a complaint. Our charge of a small fee has never been objected to by those requiring the accommodation, and it would be a most unbusiness-like proceeding were we not to recoup ourselves in some small degree for the trouble and expense incurred in compiling the register.

\* \* \* \*

"NORWAY PICTURES," by Mr. Paul Lange, President of the Liverpool Amateur Photographic Association, will be published very shortly as "Prize Pictures," No. 2. There is already a very large subscribed sale for the book. All interested in Norway should possess a copy. The photographs reproduced are exceptionally good, and must excite very great interest.

\* \* \* \*

WE would call attention to the fact that the photographs contributed to the AMATEUR PHOTOGRAPHER August Competition are reviewed in the *Photographic Reporter* for this month. The *Reporter* contains a very complete summary of the month, and many papers upon photography of general interest to all workers in photography. The frontispiece is a Woodbury print of "Norfolk Homes," by H. Dudley Arnott, and the contribution to the "Portrait Gallery" is a photograph by Dr. W. H. Rean, President of the Brighton Photographic Society.

\* \* \* \*

THE following is from the *Liverpool Daily Courier* :—

"Photography 'in natural colours' has long been the dream of the enthusiast, and while some experimentalists claim to have actually achieved the desired result, and coloured pictures have been produced by indirect means, they cannot be 'fixed' and printed off as from ordinary negatives. Some advance, however, has been made in these methods, and a remarkable illustration of a recent process appears in the current number of the *Photographic Quarterly*. The picture represents a group of highly-coloured vases and plants surrounded by screens, and has been produced 'without retouching, by combining three images in yellow, blue, and red pigments respectively, printed from negatives on plates rendered specially sensitive to light of the complementary colour and exposed through suitable colour screens.' The reproduction of this brilliant plate has been done by the 'chromo-collotype' process, the plate being printed from three different negatives, in special inks, registered one over the other, the yellow being printed first, then the red, and finally the blue. A similar production in ordinary chromo-lithography would, it is said, necessitate ten or twelve printings."

\* \* \* \*

THE latest date for receiving photographs for exhibition at Pall Mall is fixed for the 15th inst. Mr. Cocking calls attention to the fact in our correspondence columns.



A NOVEL GIFT FOR AMATEUR PHOTOGRAPHERS.—The publishers of "Names we Love and Places we Know" (Messrs. Hazell, Watson, and Viney, Ltd., 1, Creed Lane, E.C.) have handed us a copy of the book, which is got up in a most artistic form. The book serves several purposes—a birthday book, autograph album, and a photographic album. To each day in the year is devoted an appropriate quotation, and on the dexter page is left a blank for autographs, etc. In different parts of the book are inserted twelve pages with neat borders, upon which silver, platinum, or bromide prints from quarter-plate negatives can be mounted; these may, of course, be views of "places we know" or portraits of "those we love." The prices are given on the specimen pages, which are enclosed in this issue. We consider the publishers are perfectly justified in stating that "Names we Love and Places we Know" is the prettiest and most novel gift book of the season for amateur photographers.

## Letters to the Editor.

### CITY AND GUILDS OF LONDON EXAMINATION.

SIR,—Regarding the City and Guilds of London Institute for the Advancement of Technical Education, I should like to trespass on your space with a few reflections that occurred to me on reading the programme and your "views" on the subject.

First, I must state that last year I passed the ordinary grade and (possessing the qualifying science certificates) was awarded the full technological certificate in the ordinary grade for photography. Meanwhile having qualified in the advanced science subjects, I wished to sit for the honours grade, as it carries a teacher's certificate. But the special local (science and art) Secretary for the district had, I understand, only two applications; this number being so small, and no other examination on that particular evening, as well as the subjects not being part and parcel of the Art and Science Institute work, no examination could be held. I communicated this fact to the City and Guilds of London Institute, and received a courteous reply, to the effect that as arrangements could not be made with the local Secretary, I should have to make application to be examined at the Institution in Exhibition Road.

Now, all I wish to point out is, that the facilities for examination, at least so it appears to me, have been, by the alteration of date, *lessened*. When it coincided with the "botany" evening, as I believe it generally did, there was no practical difficulty in the way of examination (locally) of a small number. Now, it is quite possible that anyone having acquired the necessary knowledge, unless residing in some very large centre, or that can afford time and expense of a journey to London, as far as the sitting for examination is concerned, will be disappointed.—Yours truly,

Reading, August 30th, 1890.

S. E. KELF.

\* \* \* \*

### ARISTOTYPE PAPER.

SIR,—Your correspondent "A. J. S." evidently gives himself a good deal more trouble in toning aristotype prints than I do, but I doubt if he gets better results.

My method is simplicity itself, and is as follows :—

Put prints *direct* into toning solution, composed of chloride gold and sulphocyanide of ammonia only (no washing). When toned, rinse in clean water, and then into fixing bath, say, 2 ozs. hypo to 1 pint water, 10 to 15 minutes; wash well in several waters, then hang them across a line or cord with faces upwards. I strongly recommend this to fellow amateurs in preference to the more complicated formulæ and directions usually given.—Yours,

A. W. D.

August 21st, 1890.

\* \* \* \*

### "ONE MAN" LANTERN EXHIBITION.

SIR,—Having in view the nearness of the lantern season, I take the liberty of placing before you an idea that has occurred to me in connection with the subject, in the hope that you will see your way, with your usual liberality and energy, to enter into the proposal and make the thing go to a successful issue.

The "one man" photographic exhibitions of the Camera Club have always commended themselves to me as being a good thing for the few who could avail themselves of them. But the thousands of provincials have only been able to read of the beautiful pictures on view in the far-off big city.

Could you not come to our aid and institute "One Man" Lantern Exhibitions? Every club or society could then participate in the advantages thus placed at their own doors.

Your part would be to provide complete sets of say 100 slides, the work of one man, and loan them monthly to the societies, they paying expenses, and making good breakages or damage. To cover the latter, you might charge a small fee; the slides would thus go back to the owner in good condition.

I will mention no names of gentlemen whose works would be likely to be favourably received; there are many, however, whose modesty has prompted them to live in photographic retirement, who, no doubt, could make a good show against the best. I place the matter in this way, having no wish to appear to desire advertising the works of a favoured few.

I would not confine the use of the sets of slides to societies only, although every club might arrange for its monthly lantern show, to stir up and enliven its proceedings thereby. I think, subject



to your own discretion, charitable and good objects might be benefited thereby also. For instance, I know of a photographic society who handed over to an infirmary £20, the proceeds of such a show with a concert combined, and I do not see why every photographic society in the kingdom should not devote one special night each winter as a "hospital night." I have photographed in a hospital, and have no hesitation in saying that the lesson I learnt tended to make me "a sadder but wiser man." We have no idea of the suffering that is in our midst—"out of sight, out of mind"—or of the quiet, loving labours that receive so little encouragement and help at all commensurate from outside.

As the exhibitions in all cases would be of *pictures*, I would not stipulate that the *slides* should be made by the "one man." What we want to see is the talent in its various phases of the artist in its best form, and, therefore, I would say, by all means admit all slides taken from the negatives of the artist. This would admit a great deal of good work, as there are many gentlemen of high ability who would go to the cost of slides who might not have the time or inclination to make them. I am advocating "one man" lantern exhibition of pictures, and not "one man" *slide* manufacturing. I think this would clear the way for a goodly number of sets being placed at your disposal immediately, or early promises of such being received.

I now leave the matter in your hands, having every confidence in your judgment to devise some means of developing the ideas set forth.—Yours very truly,  
W. CLEMENT WILLIAMS.

\* \* \* \*

### THE PHOTOGRAPHIC SOCIETY'S EXHIBITION.

SIR,—Kindly permit me to remind intending exhibitors that Monday, September 15th, is the last day for receiving "packing cases" from the country by our agent, Mr. Bourlet, 17, Nassau Street, Middlesex Hospital; and also that the same day is the only one for receiving pictures and apparatus at the Gallery, 5A, Pall Mall East, S.W. Any further information can be obtained from me.—I am, yours, etc.,  
EDWIN COCKING

(Assistant Secretary).

\* \* \* \*

### HAND-CAMERAS.

SIR,—In Friday's issue I read that on Monday afternoons and Thursday mornings you are in a position to show any caller at your office the Talmer hand-camera, which you say is one of the cheapest, if not the cheapest to be of any service, at present in the market. Perhaps you will allow me to say—not the cheapest to be of any service—there is another hand-camera in the market also desiring the attention of amateurs, which has only to be known to be appreciated. It is a marvel of cheapness; its internal arrangements are excellent, and its working details simplicity itself.

The description of it is that it measures 8 by 6½ by 5, and is under three and a half pounds weight, that it takes pictures 3½ by 3¼ upon quarter-plates, requires no focussing, being always in focus for all objects that are not less than 8 or 9 ft. from it, that it has three double dark slides, has a rapid (about 1/9) single achromatic lens, and a shutter for either instantaneous or time exposures, and in appearance resembles a small sample case covered with waterproof cloth. I have fairly tested this camera, and the pictures it gives justify me in saying that they equal those given by high-priced ones. The camera and the results it gives may be seen at most photographic dealers'. It is

manufactured by Walter Griffith, Highgate Square, Birmingham, and its price is one guinea.

In the interest of amateurs generally, I desire to draw your attention to it.—I am, yours, etc.,

September 1st, 1890.

F. McKie.

NOTE.—The "Talmer" has the distinctive merit of being of the magazine type, whilst Griffiths' camera has to be opened, and dark slides inserted. The latter camera was noticed in issue of July 18th.—Ed. AM: PHOT:

### HOW TO OBTAIN VARIOUS COLOURED TINTS IN LANTERN SLIDES.\*

MR. CHRISTIAN said that about two years ago he had been working Obernetter paper, and, putting the bath away, he had never used it until, reading a paper by Mr. G. F. Blackmore, of the West London Photographic Society, in the AMATEUR PHOTOGRAPHER of March 8th, 1889, on the toning of lantern-slides, he was struck with the idea that for architectural subjects better effects might be brought up; so he experimented with the old bath, tested the action of sulpho-cyanide, adding more gold, etc. He spoiled a number of plates, but at last succeeded in making up a bath, and was enabled to put before the members a series of slides of various tints, not one of which was done on an Alpha plate.

After the exposure had been made in a printing-frame in front of a gas jet, and the plate had been developed, he bleached with 1 oz. bichloride of mercury, 20 ozs. water, washed well, soaked in the following bath, viz:—

No. 1.				
Water ..	..	..	..	14 ozs.
Hypo ..	..	..	..	3 minims.
Sulpho-cyanide ammonia ..	..	..	..	40 grains.

No. 2.				
Chloride of gold ..	..	..	..	5 grains.
Water ..	..	..	..	2½ ozs.

Take of No. 1, 2 ozs.; of No. 2, ½ oz.

This bath worked better when it had been kept a few days. The tones produced varied from yellowish brown to golden brown and deeper brown, passing afterwards to purple and a steady blue and black. The time of toning might be accelerated or retarded by the addition or reduction of the quantity of gold.

The addition of more hypo he found gave a yellowish brown tint, of more sulpho-cyanide a blackish brown. He preferred a bath rich in gold, giving a peculiarly warm luminous character to the slide. He had made various other experiments with other toning baths.

The borax bath ordinarily used he found did not seem to make any appreciable difference in the tone. Bleaching in mercury, and then immersing in a bath of water and a few drops of ammonia, gave a fine black tone, being the ordinary intensification.

As pointed out by Mr. Blackmore, a considerable range of tones was obtained by soaking the slide after bleaching in a solution of 1 grain chloride of gold to 1 oz. water before placing it in the toning bath. He added that he preferred a chloride plate for the operation of toning, notably Cowan's or Edward's.

If there was any yellowish stain after toning, this could generally be removed by immersion in a weak bath of hydrochloric acid and water.

\* Abstract of demonstration by W. P. Christian, before the Liverpool Amateur Photographic Association.

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot: Soc: of Great Britain	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
Edinburgh Phot: Soc:	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Phot: Soc: of India	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor...	Ventnor.	Jan. —.	—	J. G. Livesay, Cromartie House, Ventnor.
Liverpool Am: Phot: Assoc:	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Vienna Club of Am: Phot: ...	Vienna.	Apl. 30.	May 31.	Carl Srna, VII., Stiffigasse 1, Vienna.

\* English and European exhibits should be despatched not later than Oct. 1st., Mr. J. S. Gladstone, Woolton Vale, Liverpool, will give further particulars.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 139.)

THE tendency which hydrogen shows to combine with oxygen and form water is one of its most strongly marked chemical characteristics, and makes it a very powerful *reducing agent*, i.e., a substance which will remove oxygen from many compounds.

EXPERIMENT 49.—Take a piece of glass tube about 1 cm. in internal diameter and 25 cm. long. At about 10 cm. from one end soften 3 or 4 cm. of the tube, and draw it out slowly

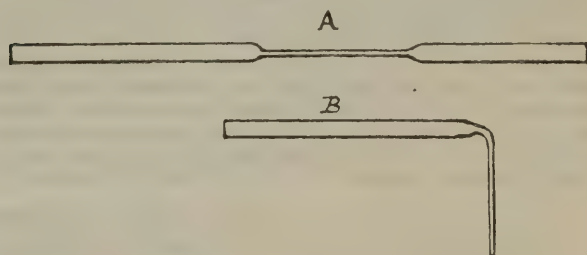


FIG. 19.

and carefully so that you have a narrow part of the tube, 10 cm. or so in length (fig. 19 a), cut off the shorter piece of the original wide tube, and then carefully bend the narrow tube at a right angle (fig 19 b). At the bend place a small loose plug of asbestos or glass wool, and fill the tube to within 3 to 4 cm. of the end with granular black oxide of copper, and weigh it. Now connect the tube with a hydrogen apparatus, and a straight or U-shaped drying tube filled with calcium chloride, as shown in fig. 20. The narrow part of the tube containing the copper oxide passes through a hole in a cork which fits into a short wide test tube. The cork is perforated with a second hole carrying a short narrow piece of tube, which serves as an exit tube. The test tube is placed in a beaker or other vessel containing cold water. Produce hydrogen in the usual way, and observe that at the ordinary temperature the copper oxide does not change in colour and no water is deposited in the test tube. After some time, when all the air has been expelled,

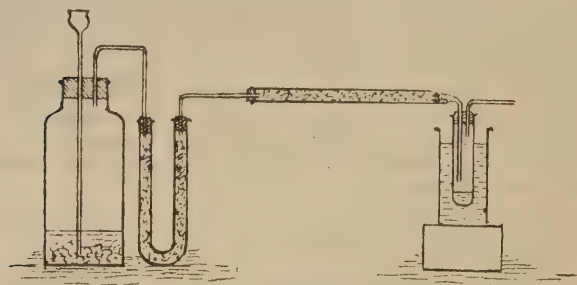


FIG. 20.

heat the copper oxide by means of a lamp, beginning at the end near the bend, and taking care not to soften the glass nor char the cork at the other end of the tube. *Observe* that the black copper oxide changes to red metallic copper, and that a colourless liquid collects in the test tube. When all the oxide has been converted into metallic copper, and all the liquid has been driven into the test tube, allow the apparatus to cool, disconnect the tube containing the copper, and weigh it; it will be found that the tube with the copper weighs much less than the tube with the copper oxide. Examine the liquid in the test tube; observe that it has no taste and no smell, and does not affect red or blue

litmus. With sodium or potassium it behaves like water, and, in fact, it is water. The hydrogen was dried by means of the calcium chloride, and, moreover, no water collected in the tube so long as the copper oxide remained cold; the water must therefore have been produced by the action of the hydrogen on the copper oxide. The hydrogen, passing over the heated oxide, unites with the oxygen to form water, which is carried away in vapour and collects in the cooled test tube, whilst the copper remains behind. The difference between the weight of the tube with the copper, and the weight of the tube with the copper oxide is, of course, the weight of the oxygen which has combined with the hydrogen to form water:  $\text{CuO} + \text{H}_2 = \text{Cu} + \text{H}_2\text{O}$ .

EXPERIMENT 50.—Perform a similar experiment with peroxide of iron (ferric oxide) previously heated strongly in a crucible in order to dry it. Water will be formed, black metallic iron will be left in the tube, and there will be a considerable loss of weight.  $\text{Fe}_2\text{O}_3 + 3 \text{H}_2 = \text{Fe}_2 + 3 \text{H}_2\text{O}$ . Compare this result with the result of Experiment 36.

If the oxide of iron is not heated too strongly, the metallic iron which is formed will take fire when shaken out into the air, combining with the oxygen of the air and again forming ferric oxide. This difference from the behaviour of ordinary iron is due to the very finely divided condition of the metal obtained by reduction in this way.

EXPERIMENT 51.—Repeat the experiment, using magnesia (magnesium oxide) previously strongly heated. In this case no water will be formed and the oxide will not alter.

We learn from these experiments that certain oxides when heated in hydrogen are easily reduced to the metallic state, but that other oxides are not affected under the same conditions.

EXPERIMENT 52.—Dissolve 2 grammes of ferric chloride in 100 c.c. of water. To a small part of this solution add a few drops of a solution of ammonium or potassium thiocyanate (sulphocyanide); *observe* that a deep blood-red colour appears. Place the remainder of the solution in a test tube or beaker, and pass a current of hydrogen through it for some time. *Observe* that the yellow colour of the liquid does not alter; withdraw a small quantity and again test it with the thiocyanate, the blood-red colour will still appear. Ordinary hydrogen gas has no effect on a solution of ferric chloride.

In a small beaker place 5 grammes of zinc, cover it with dilute sulphuric acid, and add the unaltered ferric chloride solution. *Observe* that the yellow colour rapidly disappears. After some time, withdraw some of the liquid and test with thiocyanate; the blood-red colour will no longer appear. It follows that the ferric chloride has undergone chemical change.

The difference between the two cases is that in one the ferric chloride is in contact with hydrogen in the ordinary gaseous condition, in the other it is in contact with the hydrogen at the moment of its liberation by the interaction of the zinc and sulphuric acid. We find that under the latter condition hydrogen can produce a change which it cannot produce under the former. Elements at the moment of their liberation from their compounds are said to be in the *nascent state* (*nascens*, being born), and it is found that they can then effect many changes which they cannot effect when in the ordinary free state.

### THE ATMOSPHERE.

The word atmosphere is used in a general sense to denote the gaseous envelope surrounding any object; it is used in a special sense to denote the mass of gas which rests on the surface of the earth and extends into space to a distance which has not yet been definitely ascertained.

We have evidence that the earth's atmosphere—or, as we



commonly call it, the air—is a material substance in the resistance which it offers to the rapid passage of an object such as a piece of paper, and in the force exerted by wind, which is simply air in motion. Direct experimental evidence is obtained by taking a strong glass or metal flask fitted with an air-tight stopcock, pumping out as much air as possible by means of an air-pump, closing the stopcock, and weighing the empty flask. On now slowly opening the stopcock, the surrounding air will be heard to rush in, and if the flask is again weighed it will be found to be decidedly heavier, the gain in weight being due to the air which it contains.

The weight of the air practically results in a pressure which is exerted in a direction perpendicular to the earth's surface, and which is equivalent to 1033.3 grammes on each square centimetre, or 14.70 lbs. on each square inch. Since the air is a fluid, this pressure is exerted equally in all directions. It is, for example, the pressure of the air which supports the water in the gas bottles in the pneumatic trough.

EXPERIMENT 53.—Fill a bottle or cylinder which has a flat mouth completely with water, and place a piece of card on the top so that not a single bubble of air is enclosed. Now hold the card steadily against the mouth of the bottle with the fingers of one hand, and with the other turn the bottle upside down. Take away the hand which holds the card, and you will find that the card remains against the mouth of the bottle and the water does not fall out.

The pressure of the air, exerted equally in all directions, is received by the top and sides of the rigid glass bottle, but at the bottom it can only act upon the card, which it keeps pressed up against the mouth of the bottle, and thus prevents the water from falling out.

(To be continued.)

## Photographic Optics.—I.

BY C. J. LEAPER, F.C.S.

*Nature of Light—Rectilinear Propagation—Intensity of Illumination—Law of Inverse Squares, and its Applications.*

As in chemistry the atomic theory serve to explain the facts revealed by chemical analysis, so in optics the "wave" theory accounts in a satisfactory manner for most of the observed phenomena. Light is due, according to this hypothesis, to extremely rapid oscillations occurring in what is called the "luminiferous ether." Ordinary white light can, as most people know, be decomposed or split up by a prism, and the "wave theory" explains this fact by saying that each wave constituting light of any particular colour possesses a different rate of oscillation, the prism sorting out from each other the different waves which co-exist in white light.

It is a familiar fact that light cannot turn a corner. An opaque substance interposed between a source of light and the eye will prevent it from being seen, and if a small aperture be made in a piece of tinfoil, and this latter be then used in place of the lens in an ordinary camera, an inverted image of any object in front of the camera will be perceived on the ground-glass. These effects are only explicable by saying that light is propagated in straight lines.

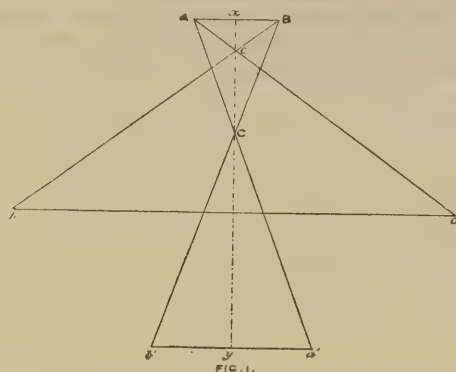
The intensity of illumination of any surface varies inversely as the square of its distance from the source of light illuminating it—a fundamental law in optics generally known as the law of inverse squares. This law can be proved true in the following simple manner, depending upon the sufficiently obvious principle that if two luminous bodies

cast shadows of equal intensities they must be of equal illuminating power:—

Procure some stout wax taper and cut off five pieces about two inches long. Fasten four of these together with thin copper wire, and mount these four and the single one on two separate stands, say two small nails projecting through two pieces of thin wood. Now place a large book standing upright on the table and throw a sheet of white paper over it. This is to serve for a screen.

If the single piece of taper be now lighted and placed a foot distant from the screen, and the four pieces also lighted two feet away, it will be found that any opaque body, say a pencil, placed between the lights and the screen, will cause two shadows to be formed on the screen equal to each other in blackness. As we know that the four tapers emit four times the light of one taper, we learn that halving the distance quadruples the intensity of the light.

Similarly three tapers at 9 feet, four at 16 feet, five at 25 feet, etc., would all possess at the screen the same illuminating power. The intensity of illumination falls off



then inversely as the square of the distance, and this law finds several applications in practical photography.

Thus, the distance between the ground-glass and the lens being in a special case, say, 24 inches, if an object to be photographed requires an exposure of four seconds, this exposure will become one second if the distance between the ground-glass and the lens be reduced to 12 inches. The nearer the object, in other words, the longer the exposure (of course all other conditions remaining the same), for the nearer the object the more distant from the lens will the ground-glass be necessarily placed.

And if in the preceding example we were to employ a lens of much shorter focus, we should find that the ground-glass would have to be brought very much nearer the lens, and since as before the intensity of illumination falls off inversely as the square of the distance, the ratios between the exposures necessary in the two cases would be got by measuring the respective distances, and then squaring the figures so obtained.

An example will make this clear. Let the distance between the ground-glass and the lens be twenty-four inches in the first case, and let that distance be reduced to twelve inches by using another lens. Then the ratios between the two exposures will be as  $24^2 : 12^2 = 4 : 1$ .

It follows at once from the above that, every other condition remaining the same, a lens which will form an image on the ground-glass when the latter is very near it, must necessarily be more rapid than one with which the ground-glass must be placed further off.

This real gain in rapidity is, however, obtained at the expense of the necessary over-exposure of some portion of the sensitive plate.

Thus, in fig. 1, A B is the surface to be photographed,



the lens being at C, and the sensitive plate at  $b'a'$ . Here the line Cy, representing the exposure necessary for the portion of the plate at y, is sensibly equal to the lines  $Ca'$  and  $Cb'$ , representing the exposure to be given for the margins. In other words, it is possible to correctly expose the plate at y without over-exposing it at  $a'b'$ .

But if for this lens we substitute another, c, with which the surface to be photographed has to be brought up to A B, it is quite clear that the line  $ca'$ , representing the exposure now necessary for the centre of the plate, is very much shorter than the lines  $Ca'$  and  $Cb'$ , representing the marginal exposures.

So that we are on the horns of a dilemma. We must either give the correct exposure to the centre of the plate at x, in which case the margins will be under-exposed, or correctly expose the margins, in which case the centre will be over-exposed. In either case a negative correctly exposed all over is an impossibility, and the nearer the ground-glass is to the lens the greater the impossibility becomes.

Since light is propagated in straight lines, it is sufficiently obvious that the larger the aperture through which light is admitted the more light will pass through, and a moment's consideration will reveal the fact that the quantity of light

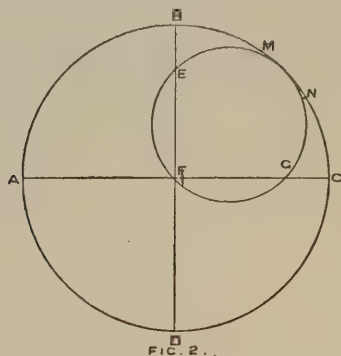


FIG. 2.

passing through a given aperture will be equal to the area of the latter. Through an aperture four inches square, for example, four times as much light will pass than through an aperture one inch square, and since the area of a square is obtained by multiplying the length of one of its sides by itself, it is clear that a square two inches in the side will let through four times as much light as one having a side only an inch long.

In the stops or diaphragms of a lens we make use of circular apertures of varying sizes, which control the quantity of light reaching the ground-glass, and therefore the exposure to be given to the sensitive plate. The relative areas of circles vary directly as the squares of their diameters, as can be proved in a very simple and yet sufficiently accurate way as follows:—

Let a circle be drawn on paper and two diameters constructed in it at right angles to each other. If the compasses be now opened to just half the previous extent it will be found that a circle of this diameter will just fit into a quadrant or fourth part of the larger circle.

This is shown in fig. 2, in which A B C D is the larger circle, with the diameters A C, B D at right angles to each other, B F C being the quadrant or fourth part of this circle, into which the small circle E N G F, having *half the diameter* of the larger one, just fits, the portions overlapping at E F and F G being just sufficient to fill up the gaps at B E M and N G C.

To determine the relative exposures to be given with different stops, it is therefore merely necessary to measure their respective diameters, and square the numbers so

obtained. Since the latter figures represent the relative amount of light passing each stop, it is clear that their reciprocals will represent the relative exposures to be given with each.

It is usual to express the relative rapidities of different lenses by the ratio between their largest workable aperture and their focal lengths. This latter may for present purposes be taken as the distance between the lens and ground glass, when a very distant object is focussed. The ratio is represented by a fraction. Thus  $f/5$  means that the particular lens to which it refers has a focal length five times the diameter of its largest workable stop. A lens having a focal length of ten inches, and working with an aperture two inches in diameter, would be spoken of as working at  $f/5$ , and, of course, a lens of five inches focal length, and working with an aperture an inch in diameter, would also be so described. Evidently from first principles, each of these lenses possesses the same rapidity, for although the focal length of one is only half that of the other, its workable aperture is reduced in the same proportion, and as the exposure varies *directly* as the squares of the foci, and *inversely* as those of the apertures, it is plain that one lens is as rapid as the other.

Expressing the aperture of a lens as a fraction of its focal length, also enables us to compare at a glance the relative rapidities of two or more lenses, since the rapidities will be inversely proportional to the squares of the denominators of the fractions. Thus comparing lenses having respectively foci of twenty and ten inches, and apertures of two and four inches, by first principles we see that the latter lens possesses, so far as its focal length is concerned, four times the rapidity of the former one, and as it works with twice as large an aperture, its rapidity will be quadrupled on this score; also that it must be sixteen times more rapid than the lens with the longer focus.

Expressed by the usual convention, we say that the former lens works at  $f/10$ , or  $\frac{1}{10}$ , and the latter at  $f/2\frac{1}{2}$ , or  $\frac{1}{2\frac{1}{2}}$ , and as ten is four times two and a half, 4 squared, or 16, expresses the number of times the lens of shorter focal length and larger aperture is more rapid than the other.

(To be continued.)

## Photographing in Iceland.

### III.—THE ROUND TRIP IN DETAIL.

OUR morning meal consisted of kidney soup, tinned meat, biscuits, cocoa, and excitement, the cooking being done, as on the night before, in the sulphur springs.

Krisuvik is indeed a wild and terrible region, though perhaps safe enough until the time comes round again for more volcanic desolation of Iceland. A few inches beneath the vari-coloured surface of the earth you can hear and feel molten nature churning and bubbling like a boiling pot. Prod a hole in the ground with a stick, and forthwith a slender column of steam curls up to the blue vault of heaven with startling and significant spontaneity. Imagine an extensive morass in a valley surrounded by towering jagged peaks; clouds of steam are ascending fleecy white against the dark background; the rocks and boulders and the sulphurous deposits from the boiling springs are every colour you can think of and a good many that you can't; the ground beneath your feet rumbles, quivers, and shakes. This is Krisuvik; how do you like it?

Immediately after breakfast we made a discovery which gave the expedition, our camera men in particular, something of a twinge. Mr. Lange, the consternation in whose face was painful to see, found his camera "all burst up"



and done for. Here was a pretty pickle indeed! Suppose the rest of the cameras were similarly disabled! There was a mad rush to the pack boxes. Happily, however, the words "All right" were soon passed along, and we breathed more freely. But the jolting, jogging, and bumping of that twenty-nine miles' ride from Reykjavik to Krisuvik were sufficient to hash up the half-dozen cameras we possessed a dozen times over. Two or three hours' dexterous manipulation luckily "fixed" our leader's camera temporarily, and he set to work with the rest. Photography was begun systematically at Krisuvik, our photographers rising to the occasion with enthusiasm.

During the morning we had a severe thunderstorm, which drove us quickly under shelter—all of us but our intrepid artist, Mr. Talbot Kelly, who painted away through the rain with dogged persistency. Enveloped in a military waterproof and huge yellow sou'wester, he was not an inappropriate figure in this wonderful valley. I think that Mr. Kelly seldom if ever went to sleep during the whole of our trip. Early and late, in the middle of the day, before and after meals, always, he was ready when a choice bit presented itself to open an attack. Iceland is so full of colour, and so prolific of peculiar formations, that it offers many more opportunities to the painter than the photographer. Our artist recognised this, and he applied himself to reproduce Iceland on canvas in thorough style. How far he has succeeded some two or three score brilliant pictures in oil and water-colour eloquently show.

The storm over and our camera brigade having exhausted Krisuvik satisfactorily to themselves, we struck our tent and started for Vogsösar at 3.30 p.m. The distance from Krisuvik to Vogsösar is about 18 miles—terrible miles. Our route now lay immediately along the coast line, across what was really a dreary rugged lava bed ocean-washed and storm-beaten. The path—I must give the track a name of some sort, I suppose—was dreadful. How we managed to keep on our ponies during that ride was a mystery to all of us. By the time we reached Vogsösar there was not a man of the expeditionary force but who was prepared to take a circus engagement. "Put us in a room on horse-back," said we, "and we'll undertake to walk up the walls and across the ceiling in less time than it takes to tell." We reached Vogsösar at 11.30, having been eight hours in the saddle. Earlier in the march a contingent of us had made a detour branching down to Krisuvikrberg, to see some famous cliffs and still more remarkable flocks of sea birds. On this extra march we fell in with a farm-house, where, as a very special favour, we were regaled with milk.

Special favour or not, we deserved the luxury—only those persons who have gone through the same experience can appreciate how much. Our camping ground for the night was on the banks of a lake, Hlívarvatn, a rather comfortable spot, free from the hissing and fuming of Krisuvik, and on the whole more conducive to pleasant dreams. We turned in at about midnight, the sun in the sky giving a beautiful, mellow, golden light, and the surroundings being most auspicious and cheerful. It was a novel experience, this tent life. Night and day had little or no meaning for us. It was light all the time, and at last it was impossible for us to tell where we were—at breakfast time, dinner hour, or supper. If we had got much more mixed, I expect we should have forgotten who we were, and whom we belonged to. This might have led to most heartrendering complications, for it is morally certain that our friends and relatives would have been quite unable to single us out. We were getting something the worse for wear and tear, travel-stained and soiled. Need I say that we slept well on the morning of the 8th? We did, anyhow, and some of us, at least, had to coaxingly persuade ourselves to turn out,

plunge in the lake, and make ready for breakfast. How those shake-downs under the canvas pulled that morning! It was like getting up to an execution. But hot coffee soon braced us, and eleven o'clock saw us once again in the saddle bound to the Ölfusa River.

This was our third day out from Reykjavik, and the second from Krisuvik. We were making for Eyrarbakki, an important trading post on the south coast of the island, distant about twenty-five miles.

Fortunately, we now struck more decent country than that we traversed on the two preceding days. We had not level country, by any means, but comparatively speaking it was better. Our rate of progress was greater until we again encountered lava beds, and then we reined up into the old monotonous amble. It was dreadfully hot, tedious work crossing these lava beds and arid sandy wastes. The skin began to peel from our faces, and altogether we were not quite so happy and contented as in the early hours of the morning we expected we should be. More injustice still—we had nothing to eat from breakfast at eight o'clock in the morning until supper at nine o'clock at night. Worse than all, perhaps, during our day's journey we had swum the Ölfusa, a river about half a mile wide, and had then, being delighted with coming on to a bit of flat country, raced across the plain with the ecstasy and lightheartedness of schoolboys. In the course of this race one of our party came a cropper, the details of which accident I must leave over for my next article. We arrived at Eyrarbakki at 7.30, having been riding almost continually for eight and a half hours—not "bad" work for beginners, we were told. It would have been a relief to brain somebody, but we had to be content with merely looking vicious and—muttering.

(To be continued.)

## Yacht Photography.\*

### NEW SUPPORT FOR INSTANTANEOUS WORK.

THE principal object of the apparatus is to enable the operator to take instantaneous views from the deck of a vessel with a camera of any dimensions. In the ordinary way it is hardly possible to use a larger size than the 9 by 12.

It is of the greatest advantage, says M. Piver, when taking these instantaneous views, to use the double-bodied camera with two lenses of the same foci recommended by M. A. Londe in his excellent work on modern photography.

The smaller camera—9 by 12, for example—is used merely for obtaining the correct position and focus, and for this purpose is furnished with an eye-glass fitted into a cone at the end of the camera body, which is stiffened by two rods. By this means the velvet curtain, so useless in a breeze, is entirely done away with. The other camera—18 by 24—without any ground-glass screen may always be kept loaded and ready for use.

The dimensions may, of course, be increased to any convenient size.

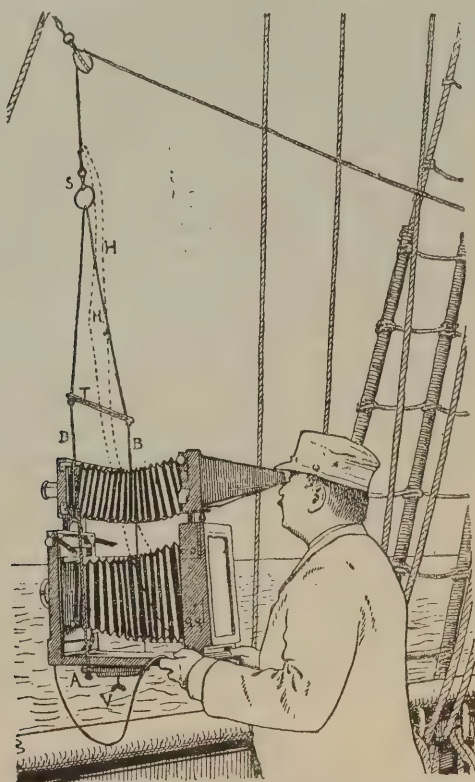
The swing thus formed retains the camera in a perfectly horizontal position, and entirely counterbalances any movements of the vessel.

The board A is a piece of wood a few inches in width placed crossways beneath the camera, slightly projecting on each side, and to which it is fixed by means of the ordinary screw. The board may be covered with a piece of cloth, and any danger of slipping thus avoided. The two ends of a stout cord (A) are passed through holes at the extremities of the board, and a knot is made in each. This cord, which is kept in position by a light cross-piece (T) placed a little above the camera, works freely in a ring (S), permitting of any necessary see-saw movement to right or left with the slightest friction. The ring itself hangs from a cord passing through a small block attached to any convenient part of the rigging.

\* Abstract of a letter from M. Piver to the Editor of *Le Yacht* (Paris).



The power of elevation or depression is in the natural mobility of the swing on the two fixed points; the inclination to right or left is regulated by the twisting of the cord. In this way the movements of the camera are in the absolute and easy control of the worker, and the finding of the position becomes a matter of great facility.



A, board upon which the camera is fixed; V, fastening screw; BB, cords sustaining the board A; T, wooden cross-piece; S, suspending ring; HH, lines for holding the apparatus in position.

This manner of instantaneous working is so comfortable that it is recommended for use also on shore whenever it be possible to obtain a support from a verandah, the branch of a tree, or a window.

For a series of operations it would be advisable to construct a movable apparatus, after the style of a vessel's cat-head, from which the whole arrangement could be suspended.

One of the chief advantages of this movable support on a rigid base is that any jolting of a steamboat, railway carriage, or other conveyance is greatly mitigated.

"PHOTOGRAPHIC SCRAPS."—This sheet of useful information issued every month by the Britannia Works Company, has with the September number reached its first birthday. The circulation, 16,000, is entirely a gratuitous one, and we have every reason to believe that much that is contained in the four pages of literary matter is found to be of service to workers in photography, both professional and amateur. The Editor very rightly keeps in view the Company's own manufactures, and in a paragraph upon "Seeking after Novelties," especially in the matter of developers and the desire of many workers to use developers other than those recommended by the makers of plates, he says: "We challenge anyone to prove that development of our plates can be better done by any other means than by pyro and ammonia, or of papers than by ferrous oxalate. They are tried and reliable formulæ, capable of the greatest latitude when used with discretion, and though other methods may, and do, in some cases give equal results, those we mention prove the more generally useful, and most adaptable to all circumstances." Now this advice we most thoroughly endorse; the love of experimenting with every new formula is very rampant, especially with amateurs, and as a consequence there is always something wrong. The makers know the best developer for their plates, and naturally advise that which will give the best results.

## Science Notes.

MESSRS. LONGMANS have in preparation a book by Mr. Lewis Wright entitled, "Optical Projection: a Treatise on the Use of the Lantern in Exhibition and Scientific Demonstration."

When the Photo-Survey of the West Riding of Yorkshire is commenced—as we trust it will be in the not distant future—the workers will find valuable guidance in the "Handbook for Leeds and Airedale," which Professor L. C. Miall has edited for the members of the British Association.

The July number of the *Journal of Indian Art* (published by Quaritch, of Piccadilly) contains thirty-two plates executed by Mr. William Griggs in the finest style of photo-lithography. They illustrate the records and relics of the late "Honourable East India Company." The price of the journal is only two shillings.

A curious effect of light is reported by a correspondent of the *English Mechanic*. He states that ivory dealers expose ivory hair-brushes, etc., which when freshly made are yellowish, to the sun behind plate-glass. This bleaches them.

Mr. Hermann Fol has been studying the nature of the light which penetrates below the surface of sea-water, by means of a diving suit belonging to his laboratory at Nice. He finds that the colour of the water varies from blue to greenish, according to its degree of clearness. At a depth of 30 ft., objects have a bluish tint, while at 80 ft. the light is so blue that such sea-creatures as are really of a dark-red colour appear quite black. On rapidly ascending to the surface all objects appear red to the diver's eye, which has become "tired for blue" by the constant blue light of the sea depths. In passing through water the red rays are the first to be extinguished. It is the blue rays which penetrate to the greatest depth, and it is these rays which are most effective on photographic plates. "Thus fall the objections that certain scientists, with a persistency that does no credit to their notions of physics, have urged against the use of the photographic plate for finding to what depth daylight penetrates water."

We regret to hear of the death of Mr. Jas. W. Queen, of Philadelphia. The firm which bears his name has for nearly half a century had a high reputation in the United States as opticians, chemists, etc.

Mr. Charles Reid, of Wishaw, N.B., has issued a new series of "Artists' Photographic Scraps" of animals. The *Magazine of Art* says:—"They are not scrappy—an enormous amount of pains has evidently been taken to arrange the groups well; many of them are carefully composed pictures in black and white." This is high praise.

Messrs. Mansell and Co., of Oxford Street, are issuing a very interesting series of photographs of the South Pacific Islands.

The following question has recently been considered by a meeting of French jurists (*i.e.*, persons expert in the law), "May any artist, apart from defamatory intention, reproduce a person's features without his consent in a picture, drawing, or design?" The result of an animated debate was the opinion that an artist could not so act. Should the law-courts uphold this decision, there will be "bad times," not only for the carriers of detective cameras, but for illustrated journalism in general, and caricaturists in particular.

The sum of £22,000 is the price for which the famous American firm of opticians—Alvan G. Clark and Co.—have agreed to construct a telescope having a lens forty inches in diameter for the University of Southern California. This instrument will possess one-third more power than the great "Lick" telescope, which is at present the most powerful refractor in existence.

This reminds us that Mr. Barnard, of the Lick Observatory, has been attempting to photograph the "cloud forms" of the Milky Way with a one-inch (of nine inches focus) Voightlander lens, mounted on a telescope stand, worked by clock-work. The exposures reached up to one hour and a half, but this time was wholly insufficient for the nebulous light, although the plates were "literally sprinkled with stars, most of which were beyond the reach of the eye alone."

F. G. S

"NAMES WE LOVE AND PLACES WE KNOW."—We are asked to state that the price for this book, in quantities of not less than six, bound in bevelled cloth boards, gilt edges, is 2s. 6d. each, and not 2s., as stated in the circular, through a printer's error.



## Apparatus.

### ROBERTS' HAND-CAMERA.

IN the AMATEUR PHOTOGRAPHER for the 22nd of August, Mr. G. D. Redditch kindly answered query No. 4005, "A Camera on Horse-back," and described a camera which has raised the curiosity of many of our readers, and we must admit that we were anxious to inspect a camera spoken of in such glowing terms by our correspondent.

We communicated with the inventor, Mr. G. Roberts, of 5, Norman Terrace, Selby Road, Leytonstone, and he very courteously brought the camera to us for inspection. We shall now, as briefly as possible, describe it for the benefit of our readers.

The camera is of the magazine type, and contains in the upper chamber sixteen plates in a box which is moveable in the field, which can be made light-tight, and can be supplied, if need be, by the dozen, so that practically the number of plates that may be used is only limited by the number of the boxes the operator is disposed to carry. The plates are *not* in sheaths, but fall of their own weight into the exposing chamber, and are racked over the channels or grooves in which they are held during exposure by an automatic arrangement that ensures only the one plate falling into the groove. To return the exposed plate into the box the camera has at present to be turned upside down, but we understand that Mr. Roberts will be able to arrange for this to be done by a lever, and so prevent the necessity of turning the camera over. When the exposed plate is returned into the box or plate chamber, the box travels forward over the exposing chamber, a pin is drawn, and another plate comes into register for exposure, and so on until the whole sixteen plates have been used.

The motions we have endeavoured to describe will be sufficient to show that except at the *actual* time of exposure, the exposing chamber or body of the camera is free of plates; and by a most ingenious contrivance a focussing screen is adjusted to the exposing chamber, which is racked up to the true line the plate takes when in position for exposure. By this means and a rack and pinion movement of the front of the camera every view to be taken may be focussed, or the lens may be focussed upon objects at certain distances, and a scale placed upon the under side of the camera, for which purpose a pointer is provided; this scale need not be an arbitrary one, but should be applied to the actual lens in use in the camera itself.

The front of the camera before us is fitted with a Thornton-Pickard shutter, and the hood of the lens fits into the aperture of the shutter, the shutter being actuated in the usual manner. By dropping the front of the camera we have to all intents and purposes a quarter-plate camera, which can be fixed upon a tripod and adjusted as an ordinary camera, with the immense advantage of no double-backs, and only one chamber for plates, exposed and unexposed.

The camera is well designed and well made. There appears to us to be no reason why this camera should not be made in other sizes beside quarter-plate. Mr. Roberts will no doubt be pleased to give particulars as to price. We are given to understand that it will be put upon the market to meet those whom Mr. Roberts calls "the middle-class amateur." The camera brought to us is fitted with an R. R. lens, with Iris diaphragm, made by Mr. J. Hancock, of 61, City Road, E. It is sold at a low price, and the maker was for many years, we believe, with Messrs. Ross and Co.—a sufficient testimony, we should say, to the quality of the workmanship.

Any lens can, of course, be fitted to the camera, and the focussing scale adjusted for fixed distances. There is nothing more that we can say in this notice, except to commend this the first hand-camera by which each view can be focussed, to the attention of the readers of the AMATEUR PHOTOGRAPHER.

### KALLITYPE.

Messrs. John Lewis and Co., of 99 and 100, Gladstone Road, Sparbrook, Birmingham, send us some specimen prints on their "Kallitype" paper, which are very excellent. The paper is exceedingly sensitive, and the greatest care must be taken in charging the printing frames. The paper is exposed under the negative to a good light for from five to ten minutes, or from two to three minutes in direct sunlight. The exposure is stopped when the detail in the densest part of the negatives is fairly indi-

cated. Before development the image is only faintly seen. The formula for developing solution is as follows:

Nitrate of silver	..	..	..	..	50 grs.
Citrate of soda	..	..	..	..	800 "
Bichromate of potash	..	..	..	..	2 "
Tap or rain water	..	..	..	..	10 ozs.

Dissolve the nitrate of silver in about an ounce of the water, and the citrate of soda and bichromate of potash in the remainder, and mix. A precipitate will be formed, which must be dissolved by the addition of 1 drachm of ammonia '880, and after filtering add 35 drops of strong nitric acid, and the developer is ready for use.

The washing solution, No. 1, is made up as follows:

$\frac{1}{2}$ oz. of Kallitype developer.
20 drops of nitric acid.
20 ozs. of tap or rain water.

This can be returned to the bottle and used over and over.

Washing solutions Nos. 2 and 3 are made up as follows:

Citrate of soda	..	..	..	..	1 drm.
Strong ammonia, '800	..	..	..	..	2 drms.
Tap or rain water	..	..	..	..	1 quart.

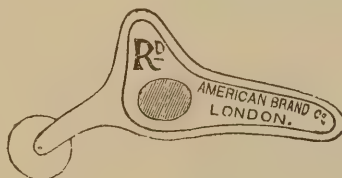
The following is the procedure after the print leaves the printing frame. It is floated face downwards in the developing solution for ten or twelve seconds; it is then placed face upwards on a piece of glass to gain brilliancy; it is then immersed in washing solution No. 1, and must remain there for at least twenty minutes. The bath must be kept acid. The prints are then washed in two baths, Nos. 2 and 3, made up as above, and must remain in these baths for, say, ten minutes each, and after the last bath they are rinsed in clear water and dried. Prints have to be kept moving in the baths. Directly the washing solution shows the least tinge of yellow the prints must be removed into a fresh bath, otherwise the prints will be yellow. The prints before us are certainly equal to many platinotype prints. The paper is not expensive, and the salts for developer, etc., can be purchased of Messrs. Lewis and Co. Ten ounces of the developing solution will, we understand, be sufficient for a gross of prints from half-plate negatives. We should advise our readers to try their hands at Kallitype, and we are quite certain that if they secure such prints as are now before us they will be more than satisfied.

Messrs. Lewis and Co. have invented an ingenious Automatic Plate Rocker, which is a very useful addition to a dark-room.

### THE POPULAR TRIMMER.

We have just received a very useful print trimmer sent us by Mr. F. W. Hunter, of 28, Norwood Road, London, S.E. If this trimmer is used we shall have no more ragged edged prints. It is sold for *one shilling* and upwards, and will be of great service to all. The same firm make a "swivel trimmer," which is even more useful for cutting circles, ovals, or rounding corners.

The wheel is made of the very finest steel, is polished, and the cutting edge finished carefully before mounting. We notice that the wheel has the cutting-edge on one side only, so as to work close to the edge, thus ensuring a clean cut, and but little chance of



dragging or tearing the print. Mr. Hunter, in a letter to us, says: "I hold exclusive rights in this form of wheel, and also in the well-known pattern of handle, and will rigorously defend my rights against any infringement. It is important that the public should know the special advantages of this trimmer, as an attempt is being made from abroad to rush the English market with an article very roughly made in the critical part (the wheel) and not having those special features of merit of which I hold a monopoly, at the same time being 50 per cent. higher in price than my goods. I would also like to intimate that although these goods and some others of my manufacture have been sold under the 'American Brand,' they are made at my London factory. The above trading style was registered as a trade mark some seven years ago; but as it has given rise to some misapprehension, I propose discontinuing it, and issuing the goods under my own name."



## Register of Dark-Rooms, 1890.

### "AMATEUR PHOTOGRAPHER" LIST OF DARK-ROOMS.

WE class them in four divisions, *i.e.*, *a* amateur, *d* dealer or professional, *h* hotel, and *s* photographic society.

In our letter of introduction full particulars are given as to owner, address, charges (if any); plates, chemicals, etc., kept by dealers; terms for temporary membership of societies; hotels; distance from station, etc., etc.

Every application for letter of introduction must be accompanied by SIX PENNY STAMPS. The owner of "Dark-Room" will be advised by same post as the applicant. The envelopes should bear the endorsement DARK-ROOMS.

NOTE.—Upon application information can be supplied respecting dark-rooms on the Continent, and addresses of many firms who stock photographic material.

<i>d</i> Aberdeen	<i>a</i> Coniston	<i>d</i> Jarrow	<i>d</i> Reading
<i>d</i> Aberystwith	<i>d, s</i> Crewe	<i>d</i> Jersey	<i>h</i> Redcar
<i>d</i> Addingham, Yorks.	<i>d</i> Crewkerne	<i>d, s</i> Keighley	<i>h</i> Redditch
<i>d</i> Amble, Northumberland	<i>d</i> Croydon	<i>s</i> Kendal	<i>d</i> Rhayader
<i>d</i> Andover, Hants	<i>a</i> Dalton-in-Furness	<i>a</i> Kimberley	<i>d</i> Richmond, Surrey
<i>a</i> Aylesbury, Bucks	<i>d</i> Darlington	<i>d</i> King's Lynn	<i>a</i> Ringwood, Hants
	<i>h</i> Dartmouth	<i>a</i> Kingstown, Dublin	<i>d</i> Rochdale
<i>d</i> Banff, N.B.	<i>d</i> Deal	<i>d, h</i> Lancaster	<i>d</i> Rodley, near Leeds
<i>d</i> Barmouth, N. Wales	<i>d</i> Derby	<i>d</i> Larne	<i>d</i> Romford
<i>a</i> Barnsley	<i>a</i> Devizes	<i>d</i> Leamington	<i>d</i> Royston
<i>d</i> Barnstaple	<i>h</i> Dingwall, N.B.	<i>d</i> Lechlade	<i>d</i> Ryde, Isle of Wight
<i>d, s</i> Bath	<i>a</i> Doncaster	<i>h</i> Ledbury	<i>h</i> Ryde
<i>h</i> Beaconsfield	<i>a, d, h</i> Douglas, Isle of Man	<i>a, d</i> Leeds	<i>a</i> St. Agnes
<i>a</i> Bedford	<i>d</i> Dover	<i>d</i> Leicester	<i>d</i> St. Andrew's, N.B.
<i>d, s</i> Belfast	<i>d, h</i> Dublin	<i>a</i> Lenzie, N.B.	<i>h</i> St. Asaph
<i>s</i> Belfast	<i>h</i> Dunblane, N.B.	<i>d</i> Leytonstone, Essex	<i>d</i> St. Bees
<i>d</i> Belper	<i>d, s</i> Dundee	<i>d</i> Lincoln	<i>a</i> St. Helens
<i>d</i> Bexhill-on-Sea	<i>a</i> Dungarvan, co. Waterford	<i>d, s</i> Liverpool	<i>d</i> St. Heliers
<i>d</i> Birchington-on-Sea	<i>a</i> Duns	<i>h</i> Lizard, Mullion	<i>a</i> St. Ives, Hunts
<i>a, d, s</i> Birmingham	<i>d</i> Durham	<i>d</i> Llandudno	<i>d</i> St. Leonards
<i>d</i> Blackburn, Lancs.		<i>d</i> Llanidloes	<i>h</i> St. Mellons
<i>h</i> Bodiam	<i>d</i> East Molesey, Surrey	<i>d</i> London, Aldersgate, E.C.	<i>h</i> St. Neots
<i>d</i> Bodmin	<i>h</i> Ebbw Vale	<i>a</i> Bloomsbury, W.C.	<i>d</i> Sandgate
<i>d</i> Bolton	<i>d</i> Edinburgh	<i>d</i> Borough, S.E.	<i>d</i> Sandown, Isle of Wight
<i>h</i> Bonar Bridge	<i>s</i> Egremont	<i>d</i> Charterhouse Sq., E.C.	<i>a, d</i> Scarborough
<i>d</i> Bournemouth	<i>h</i> Ennistymon, co. Clare	<i>a</i> Chelsea, S.W.	<i>h</i> Seddlescomb, near Battle
<i>d</i> Bradford	<i>a</i> Enfield Town	<i>d</i> Fenchurch Street, E.C.	<i>a</i> Shaftesbury
<i>d</i> Bramley, near Leeds	<i>a, d</i> Evesham	<i>d</i> Fleet Street, E.C.	<i>d</i> Shanklin, Isle of Wight
<i>a, h</i> Brechin, N.B.	<i>d</i> Exeter	<i>d</i> Gracechurch Street, E.C.	<i>d, s</i> Sheffield
<i>h</i> Bridge, near Canterbury		<i>d</i> Highgate, N.	<i>h</i> Shepton Mallet
<i>d</i> Bridlington Quay	<i>s</i> Falkirk	<i>d</i> Kingsland, N.E.	<i>h</i> Shrewsbury
<i>h</i> Brigg, Yorks.	<i>d</i> Falmouth	<i>d</i> London Bridge, S.E.	<i>d, h</i> Sleaford
<i>d</i> Brighton, Hove	<i>d</i> Faversham	<i>d</i> New Cross, S.E.	<i>h</i> Southampton
<i>d, h</i> Brighton	<i>d</i> Felixstowe	<i>d</i> Peckham, S.E.	<i>h</i> Southend-on-Sea
<i>d</i> Bristol	<i>d</i> Finchley	<i>d</i> Walworth Road, S.E.	<i>a</i> Southport
<i>h</i> Broadway, Worcester	<i>h</i> Fochabers, N.B.	<i>a</i> Long Eaton	<i>a, s</i> Southsea
<i>d</i> Bromley, Kent	<i>d</i> Folkestone	<i>a</i> Long Melford	<i>a</i> Stamford
<i>h</i> Brough, Westmoreland	<i>a</i> Four Ashes, near Stourbridge	<i>d</i> Loughborough	<i>a</i> Steyning
<i>s</i> Burnley	<i>a</i> Frodsham	<i>a</i> Louth	<i>d</i> Stockton-on-Tees
<i>d</i> Burslem		<i>a</i> Ludlow	<i>a</i> Stoke-on-Trent
	<i>a</i> Galashiels, N.B.	<i>d, h</i> Lynmouth	<i>a</i> Stony Stratford
<i>a</i> Cadiz, Spain	<i>h</i> Giant's Causeway, Ireland	<i>d</i> Lynn	<i>a, d</i> Stourbridge
<i>h</i> Callander, N.B.	<i>d, s</i> Glasgow	<i>a</i> Lythe, Whitby	<i>d, h</i> Stratford-on-Avon
<i>h</i> Camborne	<i>a</i> Glenalmond, N.B. (nr. Perth)	<i>h</i> Macroom, N.B., co. Cork	<i>d</i> Stroud
<i>d, h</i> Cambridge	<i>h</i> Glenarm, Belfast	<i>a</i> Madeley, Salop	<i>h</i> Sudbury, Suffclks
<i>d</i> Carnarvon	<i>d</i> Gloucester	<i>d</i> Maidenhead	<i>d</i> Sunderland
<i>h</i> Capel-Curig, N. Wales	<i>d</i> Gorleston	<i>a</i> Mainz, Germany	<i>h</i> Sutton Bridge
<i>a</i> Chalfont St. Peter, Mid.	<i>a</i> Goring	<i>d</i> Manchester	<i>h</i> Sutton
<i>d</i> Cheltenham	<i>a</i> Gravesend	<i>h</i> Mallow, co. Cork	<i>d</i> Swindon
<i>d</i> Chepstow	<i>d</i> Great Yarmouth	<i>a</i> Malta	<i>d</i> Taunton
<i>d</i> Chesham		<i>d</i> Malvern	<i>a</i> Tavistock
<i>d</i> Chester	<i>a</i> Halifax	<i>d</i> Mansfield	<i>a</i> Thornton Dale nr. Pickering
<i>a</i> Chesterfield	<i>d</i> Handsworth	<i>d</i> Margate	<i>h</i> Thorpe
<i>a</i> Chipping Sodbury	<i>d</i> Hanley	<i>h</i> Merthyr Tydfil	<i>h</i> Tintern Abbey
<i>a</i> Cinderford	<i>d</i> Harrogate	<i>d</i> Merton	<i>d</i> Todmorden
<i>d, h</i> Cirencester	<i>d, h</i> Hastings	<i>d</i> Middlesbrough	<i>d</i> Torquay
<i>d</i> Clacton-on-Sea	<i>s</i> Havant	<i>d</i> Minehead	<i>h</i> Tring
<i>s</i> Cleckheaton	<i>d</i> Hereford	<i>h</i> Monmouth	<i>d</i> Tunbridge Wells
<i>d</i> Clevedon	<i>d</i> Hexham	<i>d</i> Montrose, N.B.	<i>a</i> Tynemouth
<i>d</i> Clifton	<i>h</i> Holbeach	<i>a</i> Mountsorrel	
<i>a</i> Clitheroe	<i>d</i> Huddersfield	<i>a</i> Mumbles, near Swansea	<i>s</i> Uttoxeter
<i>d</i> Colchester	<i>a, d</i> Hull		<i>a</i> Ventnor
<i>h</i> Colnbrook		<i>d</i> Newark, Notts	<i>a</i> Vienna
<i>d</i> Colwyn Bay	<i>d, s</i> Ilfracombe	<i>d</i> Newcastle-on-Tyne	<i>h</i> Wadebridge
	<i>d, s</i> Ipswich	<i>d</i> Newport (Mon.)	<i>d</i> Wakefield
		<i>a</i> Newport, Pembroke	<i>h</i> Warwick
		<i>a</i> Niton, Isle of Wight	<i>a, d</i> Waterford
		<i>d</i> Norwich	<i>a</i> Wellington, Salop
		<i>d</i> Nottingham	<i>d, s</i> West Hartlepool
		<i>a</i> Northallerton	<i>d</i> Weston-super-Mare
			<i>h</i> Wetwang, York
		<i>s</i> Oldham	<i>d</i> Weymouth
		<i>a</i> Oxford	<i>d</i> Whitby
		<i>h</i> Paignton	<i>d</i> Wimbledon
		<i>h</i> Paisley, N.B.	<i>d, h</i> Windsor and Eton
		<i>d</i> Penrith	<i>d</i> Wisbech
		<i>d</i> Penzance	<i>a</i> Wolverhampton
		<i>d</i> Pershore	<i>a</i> Worcester
		<i>a</i> Perth	<i>d, h</i> Worthing
		<i>a</i> Poole	
		<i>h</i> Port Erin, Isle of Man	<i>a</i> Yarm
		<i>d</i> Preston	<i>d</i> Yeovil
		<i>h</i> Prince's Risboro'	<i>a, d</i> York
			<i>d</i> Youghal



## LIST OF CONTINENTAL AND FOREIGN DARK-ROOMS.

PLATES and photographic material may be obtained at the following towns on the Continent:—

- |   |                             |  |
|---|-----------------------------|--|
| † Adelaide  | <i>Australia.</i>           | † Melbourne  |
| Vienna  | <i>Austria.</i>             | Prague (Adolf Fische, Ferdinand Strasse, 23)         |
| Vienna (Oskar Cramer, The Graben)                             | <i>Egypt.</i>               | Alexandria (Hess and Co.)                            |
| Cannes (Buisson, 12, Boulevard de la Croisette)               | <i>France.</i>              | Paris (Maison Molteni Rue Chateau d'Eau, 44)         |
| Mentone (M. An. Fosse, Rue Partoneux)                         |                             | San Raphael (M. Ferrari, photographer)               |
| Nice (M. Ferrari, photographer)                               | <i>Germany.</i>             | Dresden (Ernest Kersler, Briest Strasse, 3)          |
| Berlin (R. Talbot, Kaiser Wilhelm Strasse, 46)                |                             | Frankfort-on-Main (Haaks & Albess, Kirchner Strasse) |
| Dresden (C. F. Bernhardt, Palais Gutenberg)                   |                             | Hanover (S. Federlein, Louisenstrasse, 2)            |
| Dresden (E. Kaden, 12 and 14, Grunalen Strasse)               |                             | *Mainz   |
| Athens (Arthur Hill, Lloyd's Agent)                           | <i>Greece.</i>              |  |
| Amsterdam   | <i>Holland and Belgium.</i> | Blankenburgh   |
| Antwerp (L. Van Neck, Rue Klapdorp, 10)                       |                             | Dinant   |
| Brussels (L. Van Neck, Rue Montague aux Herbes)               |                             | La Hague   |
| Potagères   |                             | Liège  |
|   |                             | Ostend   |
| † Allesandria (Castellani, Corso Roma)                        | <i>Italy.</i>               | † Milan (Bathista Borghi, Via Angello, 17)           |
| † Bergamo (A. Tarramelli, via Torequato Tasso, 22)            |                             | † Milan (Pietro Piellavinci, Via Orefici)            |
| Bologna   |                             | Naples (Guilio Du Besse)                             |
| † Bologna (Sorgato and Belvedere, Via Farina, 24)             |                             | † Novaro (A. Zenoni, via Ospedal)                    |
| † Casale Monferrato (A. Bertolio, Via Garibaldi, 6)           |                             | Padua  |
| Corso   |                             | Peruggia   |
| Florence (Pietro Sbisa, Piazza Stella Signoria, 4)            |                             | Ravenna  |
| † Genoa (A. Sotteri, Via Carlo Felice, 10)                    |                             | Rome (J. Juliana, Via Babuino, 147)                  |
| † Genoa (A. Speiche, Solita S. Gerolamo, 3)                   |                             | Rome (Pietro Sbisa, Fia del Corso, 149)              |
| Genoa (Badino, Portici Vittorio Emanueli)                     |                             | Rome (Oreste Dacchi, Piazza Nicosia, 27)             |
| Genoa (Carlo Coppo, Via Guilia, 43)                           |                             | San Remo (J. Scotto, Rue Victor Emmanuel, 16)        |
| † Leghorn (U. Bettini, via Ricassoli, 18)                     |                             | Spezzia  |
|   |                             | Turin (A. Berry, via Roma, 1)                        |
|   |                             | Venice   |
|   |                             | † Venice (Gerolamo Mankovain, Optician)              |
|   | <i>Japan.</i>               |  |
|   |                             | d Yokohama   |
|   | <i>*Malta.</i>              |  |
|   | <i>Norway and Sweden.</i>   |  |
| Bergen (J. Peter, Torvet, 16)                                 |                             | Stavanger  |
| Bergen (Messrs. Bennett, the Tourist Office, 18, Porvet)      |                             | Stockholm  |
| Christiania (H. Abel, Carl Johans Gade, 45)                   |                             | Trondhjem  |
|   | <i>Portugal.</i>            |  |
| Lisbon (J. J. Ribeiro, Rue Aurea, 222)                        |                             |  |
|   | <i>Turkey.</i>              |  |
| Constantinople (Cavachache Brothers, 675, Grande Rue de Pera) |                             | Smyrna   |
| Beyrout   | <i>Turkey, Asiatic.</i>     |  |
|   |                             | Syria  |
| Barcelona (F. Arenas, Plaza Regomi, 5)                        | <i>Spain.</i>               | *Cadiz   |

\* Towns marked thus come under the AMATEUR PHOTOGRAPHER Register, as the gentlemen residing there are amateurs, to whom an introduction is necessary.

† All these dealers have Dark Rooms.

*Switzerland.*

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|---|--|
| Bex (Hotel Bains et Grande des Salines)   | Pontresina (Hotel Steimbola)   |
| Bex (Grand Hotel des Bains, director, M. C. Hiele)                                | Territet, cant. de Vaud (Hotel des Alpes et Grand Hotel, director, M. Ami Chessex)       |
| Chésières, s/Ollon, cant. de Vaud (Hotel du Chamossaire, director, M. H. Amiguet) | Thoune, cant. de Berne (Hotel Freienhof, director, M. G.-R. Engemann)                    |
| Davos-Platz, cant. des Grisons (Hotel d'Angleterre, director, M. C. Demmer)       | Vevey, cant. de Vaud (Grand Hotel de Vevey, director, M. E. Michel)                      |
| Geneva (E. Baud, Rue Verdaine, 11)  | Vevey, cant. de Vaud (Grand Hotel du Lac, director, J. Tappert)                          |
| Geneva (Philippe J., Cour de Rive, 11)  | Vevey, cant. de Vaud (Hotel Pension du Panorama, director, M. N. Blotnitzki)             |
| Hotel des Avants, nr. Montreux  | Villars s/Ollon, cant. de Vaud (Hotel du Grand Muveran, director, M. A. Petter Genilard) |
| Interlaken, cant. de Berne (Hotel Beau-Rivage, director, M. J. Maurer)            | Witzig, cant. de Zurich (Hotel du Château de Laufen, director, M. C. Wolter)             |
| Lausanne (Lausanne Amateur Photographic Society)                                  | Zurich (R. Ganz)   |
| Montreux (Mons. E. Frausoli)  |  |
| Montreux (Englemann, Chemist Perritet)  |  |

## Holiday Resorts and Photographic Haunts.

### CONNEMARA.

By C. H. O.

Is the reader in search of a portion of the United Kingdom abounding in views of all descriptions, rich in material for genre studies, and yet almost undiscovered by the amateur photographer? He will find all he wants in the wilds of Connemara.

How do you get there? The route is simplicity itself. To Dublin (preferably *via* Holyhead), thence to Galway.

Arrived at Galway, look out for picturesque groups of fisherwomen on the quay, with short red skirts, and bare legged. There will be no difficulty in this to the hand-camera man. Wander among the old (and Spanish) part of the town, and you will see interesting old architecture. Now begins the tour in reality. The mail car leaves Galway at 12 noon, for Reccess, twenty-five miles, and Clifden (an additional twenty-five miles). At the former place are two hotels (it is advisable to engage a bedroom beforehand). Many views of Lake Ballynahinch present themselves, also of the Twelve Pins Mountains. One day may be spent here in visiting Glendalough and Glen Inagh.

At Clifden (do not sleep here if it can be avoided) are charming scenes on the Glenowen River, in some places resembling the Llyn, also ruins of an old castle.

The next place of interest in our journey is Letterfrack. The public car for this village leaves Clifden at 9 a.m. Scenery *en route* is uninteresting, but Letterfrack is a wonderfully good centre for the camera. Kylemore Castle (residence of Mr. Mitchell Henry) and Kylemore Church will take up half a dozen plates, and there is a fine waterfall near the entrance to the castle.

Salruck Village and Salruck Pass (view of rocks, and peeps of Atlantic Ocean between) demand a separate day and as many plates as can be spared. A good picture can be made of Diamond Mountain.

Our next halting-place is Leenane, as yet chiefly of interest to our angling friends. Points of interest photographically here are the Aasleagh Waterfall and many views on the Eriff River, also of the Delphi Mountain. If you have time, cross the river by ferry, and upon the other side of the mountain will be found the Lake Doo, which will demand a couple of plates. The general scenery around Leenane is Norwegian in appearance.

Let us now proceed to Wedport (still by public car). The village of Knappa, with pretty stream, is worth exploring, and is about five miles from Westport on our road from Leenane. At Westport views can be had of Clew Bay and Croagh Patrick Mountain, also of the Park, in which is situated the residence of the Marquis of Sligo. If time permits, let the tourist proceed by boat to Achill Islands, and he will find plenty of work. Thence by train from Westport back to Dublin.



## Exhibitions.

### PHOTOGRAPHIC EXHIBITION AT FALMOUTH.

(Communicated.)

THE fifty-eighth annual exhibition of the Royal Cornwall Polytechnic Society was held at Falmouth from August 26th to 30th last, and was opened on the morning of the 26th by the President, the Right Hon. Leonard H. Courtney, M.P., who delivered an instructive and eloquent address. He was supported by a numerous and influential gathering of ladies and gentlemen from Cornwall and many other parts of England and from the colonies. The exhibition was one of very varied and instructive character. Photography has from the days of its earliest development received encouragement at the hands of the Polytechnic Society. Their annual prize list has always included the offer of a number of medals for various classes of photographic productions, which also form one of the leading features of their annual exhibitions. It is not too much to say that whilst larger displays of photographs may be seen from time to time in the London and some other exhibitions, in no collection of pictures submitted to public inspection have been found finer or more eminently artistic productions than are exemplified in the annual exhibitions of this well-known Cornish society. The number of pictures sent for competition this year has exceeded that of any former year, and it will be gratifying alike to professional and amateur artists, and to our readers generally to know that we have it on the authority of the judges that there was not a single bad picture in the whole collection, whilst not a few examples in the several classes possessed pre-eminent merit.

Medals were offered by the Society this year for the following classes: (1) Landscapes. (2) Portraits. (3) Composition Pictures. (4) Instantaneous Pictures. (5) Interiors. (6) Six Pictures in Platinum. (7) Transparencies for Window Decorations. (8) Pictures by improved processes. (9) Enlargements. In the greater number of classes there was strong competition, and we venture the remark that any medal won in the photographic department of this Exhibition is the reward of sterling good work on the part of the exhibitor.

The professional section numbered about 200 frames, and the amateur class reached a long way towards another hundred pictures.

The Landscapes were not so numerous as in some former years. There were, however, some fine examples in this class. Mr. Ralph W. Robinson took a 1st bronze medal for his landscape with cattle, entitled "Suspicious;" the grouping is easy, and the whole tone of this pastoral work is perfectly natural. Mr. Robinson's exhibit also embraced a further contribution to his "Artists at Home" series, which included the portraits of many well-known academicians, and for which he received honourable mention.

In Portraiture the palm was taken by Mr. W. W. Winter, of Derby, for his portrait, "Miss Gibbs," which for delicacy of tone and general treatment leaves nothing to be desired; a 1st silver medal was awarded it. Mr. W. J. Byrne, of Richmond, had three frames of panel "At Home" portraits, viz, one of the Emperor of Germany, a second the Princess d'Orleans, and a third of Ambassadors to the Court of St. James's—this received a 2nd silver medal. The whole series are good specimens of Mr. Byrne's high-class work.

In Composition work Mr. R. H. Low took premier honours with his fine picture, "Work and Play." The posing is natural and very happy, and the whole tone of the picture most harmonious.

In Instantaneous studies the 1st silver medal was carried off by Mr. Lyd. Sawyer, of Newcastle-on-Tyne, for a study, "On the River Tyne," which was one of the gems of the Exhibition. It is tender in treatment, exquisite in tone, and full of artistic effect. Mr. Sawyer sent nine other pictures, all of great merit; of these we like best "Smoky Tyne" and "Waiting for the Boats."

Interiors were well represented, and included many pictures of high merit. In this department Mr. H. W. Reeves, of Willesden, sent several studies, and took the 1st bronze medal for a well-handled picture, "Drawing-room at Holcombe."

The Exhibition included a large number of platinum pictures, and in this class Mr. R. Keene, of Derby, received a 1st bronze medal for an interesting series comprising a monograph of Old

Moreton Hall, Cheshire. For Enlargements, a 1st bronze medal was given to Mr. Thos. Protheroe, of Bristol, and a like award to Mr. T. G. Whaite, of Carlisle; both these gentlemen sent very good work. Mr. F. Whaley, of Doncaster, sent a very clever genre picture entitled "A Tale of the World," and received a 1st bronze medal.

The Autotype Company sent several carbon enlargements, including portraits of Lord Salisbury, the Rt. Hon. W. E. Gladstone, M.P., and Earl Selborne, the latter being the best of the series.

Mr. J. Pattison Gibson, of Hexham, sent some effective cloud studies and several pleasing landscapes. Mr. W. E. Henry, of Alvaston, Derby, exhibited two exterior views, and several fine interiors of Lichfield Cathedral, that of the font specially worthy of mention. Mr. H. P. Robinson, of Tunbridge Wells, whose high-class work is always welcome at this Exhibition, showed three good pictures, the chief one being a composition, "Gossip on the Beach." We have, however, seen work which we like better from this gentleman. Mr. and Mrs. W. J. Anckorn, Arbroath, sent two genre pictures, the better one entitled "My Time is Done." Mr. Ernest Spencer, of New Southgate, exhibited half a dozen very realistic landscapes. Mr. Clarence James, of Louth, had four good pictures, the chief, "Over the Garden Walk," being very happy in composition. B. Wyles, of Southport, sent a number of pictures, including some good portraits of large size. We prefer his small landscapes, which are very pleasing, especially "Cattle on the Dee." His studies of guillemots and gulls are interesting. Douglas J. McNeill, of Stratford, had two good pictures. Mrs. Annie E. Blake, Bedford, sent six studies, some of which were coloured by the "air brush." The result, however, is not good, the colouring being very crude. Mr. S. W. Bhedwar, of Redhill, exhibited a number of pretty studies, which received honourable mention. Mr. Harry Hewitt, of Redhill, showed two pictures of considerable merit.

York and Sons, of London, received honourable mention for a frame of good slides. Luke Berry, of Chorley, sent two good interiors. Mr. F. W. Edwards, of London, was represented by some half dozen pictures, his chief work being "Silver Shield—the Pompeian Lady," one of the finest pictures of metal work we have ever seen. Mr. J. E. Goold, Newcastle-on-Tyne, showed three good instantaneous studies. For an enlargement entitled "Young Naturalists," an admirably treated subject, Mr. Wesley W. Fry, of Tynemouth, took 1st bronze medal.

Mr. Friese Greene (London) had an effective cloud study, and Mr. G. Speight, of Market Harboro', a pretty little picture, "The Young Gardener."

Mr. W. M. Harrison, of Falmouth, Helston, and Truro, sent several frames of very creditable panel portraits, and some good carbon and bromide enlargements.

The amateur department was very strong, and included many pictures of very high merit; indeed, in several instances the amateurs ran their professional brothers very close. There were many highly interesting and well executed instantaneous studies in this section. We consider Mr. J. W. Charlesworth, of Sheffield, had the gem of this class in his "Grey Day," a little work of great tenderness and subtle beauty, and which deservedly received the 1st bronze medal. Mr. A. R. Dresser, of Bexley Heath, received a like award for his spirited picture, "Corbiere Rocks in a Storm." This gentleman sent ten frames of interesting studies.

Mr. A. G. Tagliaferro, of Malta, had a 1st bronze for his genre picture, "Choragium," harmonious in tone and general treatment. The Rev. H. B. Hare, of Frome, was awarded a 1st bronze medal for a very pleasing landscape, "Under the Mendips," and a 1st bronze also went to Mr. H. Dudley Arnett, of Gorleston, Great Yarmouth, for a well-handled interior of "Norwich Cathedral."

Mr. S. F. Clarke, of Louth, sent a very good composition picture, entitled "What Love Hangs By," an enlargement of which was awarded a prize in the AMATEUR PHOTOGRAPHER "Enlargement" Competition.

Other exhibitors sent good series of studies, including C. V. Shadbolt, of Chislehurst; John Pike, Newcastle-on-Tyne; Dr. T. J. English, London; C. Smerdon Roe, Cambridge; Dr. T. H. Morton, Sheffield; Rev. G. E. Hermon, Doublebois; J. Mountford, Coventry; A. Stieglitz, New York; F. P. Perkins, Exeter; T. L. Buck, Ravenstonedale; and C. Court Cole, of Oxford.

One room in the exhibition was entirely devoted to photographic appliances, most of which were sent through the agency of Messrs. Oakshott and Co., "Ye Camera," Falmouth, who had



the management of this annexe, and fitted it up with much taste. It was a very popular part of the exhibition, and the apparatus and goods on show, which included photographic cameras, lenses, shutters, dark-room lamps, print washers, plate-rocking apparatus, and every requisite for photographers, were displayed to the best advantage. Amongst the exhibitors here were Mr. James Wood, Mr. J. W. Rooke, J. Lewis and Co., and E. Spencer.

We have only to add that, generally speaking, great taste was exercised by the exhibitors in the *framing* of their pictures. The greater number were well mounted and suitably framed, and there was an entire absence of "loudness," if we may use the phrase. In one case an exhibitor in the professional class stuck medal cards inside the glass of his frames. This not only gave offence to the judges, but spoiled the appearance of one of the best exhibits in the gallery. Such an act will in future disqualify an exhibitor in competition for awards.

## Societies' Meetings.

**BIRMINGHAM PHOT. SOC.**—The ordinary meeting was held at the Colonnade Hotel on the 28th ult., W. J. Harrison, F.G.S., in the chair. Mr. Thomason gave a *résumé* of the half-day excursion to Warwick, and Mr. Leeson of the excursion to Lichfield. The Chairman said that Mr. Moore had kindly put on the table a most interesting and complete set of valuable photographs by the late Mrs. Julia Cameron. They were the best set he had seen. Mrs. Cameron, the Chairman said, was fifty-four years of age when she took up photography, and was the forerunner of the Naturalistic school. She gave long exposures, and her negatives were wholly untouched. Artists of her day admired her work; photographers did not. One of the prints, Tennyson, is still the best photograph of the poet laureate existing. Mr. Godfree, Mr. Stait, Mr. Rushton, and others exhibited prints taken during the Lichfield excursion. Mr. Pickard called the attention of members to the approaching competition, and Mr. Horton mentioned that the Temperance Hall had been secured for the annual exhibition for December 16th, 17th, 18th, and 19th next, when all pictures for competition must be framed. Mr. Leeson announced that Mr. Sershall would give a paper on September 25th—subject, "Art in Drawing and Photography."

**HACKNEY PHOT. SOC.**—The thirtieth ordinary meeting was held on the 28th ult., Mr. Arthur Dean presiding. Several prints were shown by Messrs. Pailthorpe, Roden, and Grant. Mr. Hubert then gave an able and instructive paper on "Portraiture and Retouching." He thought the rivalry that existed between amateurs, or rather professionals, was a mistake. They must move with the times. A good photographer must be an artist. He said he preferred graduated backgrounds even to scenic. The amateur should, when in a garden, find out the N.E. light, screen off the S.W., and with some light material shade off (regulatable) the top light. He demonstrated the lighting with the assistance of two members, and concluded by giving a demonstration on retouching. The Rev. O'Brien Brandon was nominated a member.

**LIVERPOOL AM. PHOT. ASSOC.**—The eighth ordinary meeting of the 27th session was held on Thursday evening, the 28th ult., at the club rooms, 3, Lord Street, Mr. Paul Lange in the chair, and there was a large attendance of members. Mr. Thomas B. Blackburn was elected a member of the Association, thus making the forty-second new member added to the Association this year. Mr. William P. Christian exhibited a frame containing tinted lantern slides of the Alhambra (Granada, Spain) and scenes of Algerian life. He also explained the process of obtaining the tones, an account of which appears in another column. The Hon. Sec. (Mr. E. M. Tunstall) exhibited a new photographer's exposure tables, published by T. Manson, Kendal. This being an evening devoted to the discussion of photographic matters in general, the members were invited to start subjects in which they were interested, and the question box was handed round for those who desired to remain anonymous. A discussion took place on Schölzig's new method of obtaining platinotype results with matt-surface silver paper and printing under green glass. Messrs. T. K. Glazebrook, John Price, William Tomkinson, and E. M. Tunstall had made experiments, but had not so far succeeded in obtaining the results claimed by Mr. Schölzig. A negative belonging to Mr. Glazebrook of a view taken at Llangollen, caused considerable room

for discussion, on account of a curious fog in the centre of the plate and a reproduction of a house in the fog. The lens used was a Ross portable symmetrical, and the plate was the only one so marked out of a dozen or so exposed that day. Messrs. A. T. Cleaver, Rev. T. B. Banner, J. Norman Thomas, J. A. Forrest, etc., endeavoured to suggest reasons for the phenomenon, which, however, did not seem to satisfy the members, and at length Mr. Glazebrook agreed to write to Messrs. Ross and send them the lens, negative, etc., to see if they could explain the matter. Mr. J. A. Sinclair gave a formula of a good eikonogen developer for lantern plates, viz.: (1)  $\frac{1}{2}$  oz. of eikonogen; 2 ozs. sulphate soda; 20 ozs. water. (2) 2 ozs. washing soda; 2 ozs. carbonate potash; 20 ozs. water. Take 1 oz. No. 1;  $\frac{1}{2}$  oz. No. 2, to  $\frac{1}{2}$  oz. water; this will develop eight or ten plates. Mr. B. Boothroyd exhibited some fine bromide prints of views secured by him in Norway on a recent trip this summer. Several albums were handed round, notably two by Mr. H. Lupton, in silver and platinotype, of views taken in the English lake district and in the south of Ireland. Various novelties were shown, including an ingenious bamboo tripod (ball-and-socket arrangement) obtained by Col. Ellison from London, and the "Baroness" half-plate camera, by Mr. William Tomkinson. The arrangements for the excursion to Haddon Hall, on Saturday, 30th ultimo, were explained.

**LONDON AND PROVINCIAL PHOT. ASSOC.**—September 11th, "Carbon Printing," opened by Mr. W. E. Debenham. September 18th, "Is there any advantage in the use of a large object glass in an optical lantern?" Mr. Freshwater. September 20th, last outing for the season, Hampstead; tea, "Bull and Bush," 6.30.

## Notes from the Liverpool Centre.

(By our District Editor.)

THE weather here has broken, and our members are returning to town. Accounts from the North go to show that the best of the season for out-door photography is over. In one case a gentleman who has been doing the Lake District could only get two shots in six days. In consequence of the wholesale returns to town, societies' meetings are much better attended.

Mr. Paul Lange is to give his lecture, "Norway," at the Manchester Amateur Photographic Society on Tuesday, November 11th. Mr. J. W. Wade, Vice-President of the M. A. P. S., has been in Liverpool completing the arrangements of the lecture, which is anticipated with much interest by the Manchester men.

At the ordinary meeting of the Walton Society this week the business includes a practical description of the "Obernetter Process," or a brief summary of the methods employed in toning and finishing (gelatino-chloride) emulsion papers, by the Secretary, Mr. John Kennedy. Mr. W. Beaton (Messrs. Atkinson and Son) will exhibit the "Talmer" hand-camera.

Mr. H. B. Millar has been elected Deputy Hon. Treasurer of the Birkenhead Association, the present Hon. Treasurer having signified his inability to devote all the time necessary to the office.

I have been favoured with a notice to the effect that all the work done for the "Boston Return Set" of studies of the Liverpool district should be sent in at once. Mr. C. B. Reader, the indefatigable Secretary, is anxious to remit the set to America at an early date.

There was a large attendance at the monthly meeting of the Liverpool Association held last Thursday in the Lord Street rooms. Very useful work was done, both by the Council and general body of members. A detailed account of the meeting will be found in another part of this issue. A most interesting discussion relative to the Schölzig paper brought out some useful hints. Further experiments are to be made with this paper, of which more anon.

Mr. J. L. Mackrell, who has been in Derbyshire, is understood to have brought home a "Sunset" which will eclipse anything yet done in this line by the worker named. This is saying a good deal.

Mr. Boothroyd, Mr. E. M. Tunstall, and other gentlemen of the Liverpool Association exhibit excellent pictures taken at various places during the holidays. Mr. Boothroyd has eight capital prints of the "Land of the Midnight Sun."

Exhibition matters are proceeding apace, the Exhibition Committee showing much activity.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4128. **Printing through Green Glass.**—Will some one give their experience? On the ordinary sensitised paper, is the above of any advantage for general printing purposes, or only to be resorted to in the case of weak negatives? Should the glass be a deep green, and is it to be placed inside, or laid on the top of the printing frame? I have only once used it, but was not able to obtain a print under a whole day's exposure in bright sunlight, with the further unsatisfactory result of smashing both the negative and green glass, on account of the extra pressure of the springs of the frame, having placed the glass inside.—**GREENHOUSE.**

4129. **Electric Lamp.**—Can anyone tell me if Perken, Son, and Rayment's electric dark-room lamp is a really good and reliable article, and how long it will burn without re-charging?—**H. H. W.**

4130. **Lantern Slides, Hand Camera for.**—Can any reader recommend a good hand camera, to take plates  $\frac{3}{4}$  by  $\frac{3}{4}$ , for lantern work? Must be good and cheap.—**ARLINE.**

4131. **Opalotype.**—Can any reader of your valuable paper inform me where I can obtain collodion-chloride plates, already prepared for obtaining pictures by the printing-out process, and oblige?—**A. F. D.**

4132. **Ilford Paper.**—I see the Ilford Alpha paper (improved) much advertised. Can any fellow-amateurs give their experiences of results, and for how long does it retain its sensitiveness unimpaired?—**FILM.**

4133. **Eastman Rollable Film.**—Can anyone who has practical experience of an Eastman roll-holder, fitted with an 8 by 10 spool of the new celluloid film, tell me whether the surface of the film is kept perfectly tense and without cockles?—**FILM.**

4134. **Photographic Mounts.**—Can anybody tell me where I can get photographic mounts with "Many happy returns of the day" engraved on them?—**H. I. C.**

4135. **Morecambe.**—As I am going to Morecambe for a fortnight, I should be much obliged if some one would tell me the interesting parts in Morecambe and district?—**BROMIDE.**

4136. **Express Train.**—I want to take an express train. Would be glad if some one would give me any directions about it? My shutter is Lancaster's International.—**E. E.**

4137. **Blisters.**—Cause of prints blistering when all baths, water, etc., is lukewarm?—**NOVICE.**

4138. **Quick Plates.**—Are there any better or quicker plates than Ilford extra rapid for taking animals, etc.?—**NOVICE.**

4139. **Robinson's Developer.**—Will Mr. Robinson's developer, as stated in last Friday's paper, suit Ilfords and any quick plates, and how can it be used when plates are under or over exposed?—**NOVICE.**

4140. **Exposure Meter.**—What is the cheapest and simplest exposure meter to suit an amateur?—**NOVICE.**

4141. **Weir, Photographing a.**—What plates and exposure should I give a running stream and weir, open landscape?—**NOVICE.**

4142. **Faint Negatives.**—Will some one inform me how to avoid faint negatives? I am using

Waterloo plates, and after I have developed the negative is plain but very thin, and when printed the print is very indistinct. I use the following developer:—

Bromide of potassium	...	...	2 drms.
Liquor ammonia	...	...	2 ozs.
Water	...	...	4 "

B.  
3 grs. of pyro in 2 ozs. of water, adding 4 drops of A.

The lens I use is only a common single one.—**NICKLE.**

4143. **Lens.**—I am making a half-plate camera, and would like some reader to recommend me a cheap portrait lens, and would it be suitable to use in a quarter-plate camera as well?—**NICKLE.**

4144. **Lead Toning Bath.**—Would any reader who has the formula for the lead bath which your correspondent in the number for August 22nd gives on toning, kindly give me the same?—**A. GROVES.**

4145. **Mounting Glazed Prints.**—Will some one kindly tell me the best way to mount the above? When I mount them they lose all their gloss.—**A. R.**

4146. **Hastings and Twelve Miles Round.**—Can any reader give me the names of inland places within a twelve miles radius of Hastings worth visiting with a camera (Fairlight and Ecclesbourne excepted)? Hints as to exposure, etc., will greatly oblige.—**ZINCO PLATO.**

4147. **Sheffield.**—Will some obliging member of the Sheffield Society give me particulars of a few nice spots in the neighbourhood, as I intend going there at the end of this month.—**NEW BAYLON.**

4148. **Lens for South Australia.**—Which is the best lens for hilly landscape scenery in South Australian climates, camera quarter size, and the best instantaneous shutter to work with above?—**AUSTRALIAN READER.**

## QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.

18th.—Nos. 4009, 4020, 4027, 4029.

25th.—Nos. 4038, 4045.

Aug. 8th.—Nos. 4057, 4061, 4066.

15th.—No. 4076.

22nd.—Nos. 4086, 4089, 4090, 4093, 4096, 4100,

4102, 4104.

29th.—Nos. 4110, 4111, 4113, 4116, 4122, 4123,

4124, 4125, 4127.

## ANSWERS.

4054. **Paquet Prize Plates.**—Write to the makers; perhaps they can inform you.—**BROCKLEY ROAD.**

4091. **Clearing Gelatin-Chloride Prints.**—Use a combined toning and fixing bath; wash half an hour in running water, then alum, and again wash for two or three hours.—**BROCKLEY ROAD.**

4103. **Positives on Glass.**—Take an ordinary plate, and expose as an ordinary paper print for 3 secs., 18 ins. from a gas flame, then develop.—**BROCKLEY ROAD.**

4105. **Toning Matt-Surface Paper.**—Write to Mr. Schölzig, who will no doubt give you any information you require.—**BROCKLEY ROAD.**

4105. **Matt Paper.**—This paper seems to require strong negatives, of good density and contrast. A soft, or rather a thin one gives very poor results. If your negative is of this class I fear you will not get anything but a flat picture by this process.—**W. H. H.**

4107. **Wilkesden Paper.**—See last week's **AM: PHOT: p. 156.**—**A. R.**

4107. **Wilkesden Paper.**—See article in last week's **AM: PHOT: on "Enlarging by Artificial Light," p. 156.**—**BROCKLEY ROAD.**

4108. **Bournemouth.**—Through Clifton, Bath, Westbury, Wimborne, and Poole is the best route. The photographic bits are innumerable.—**BROCKLEY ROAD.**

4108. **Bournemouth.**—I give here, not the shortest but the most interesting route, for photographic purposes. Take plenty of time, and avoid that bane of present day cycling, "record making." Gloucester to Bristol (Cathedral, Abbey Gate, Clifton Bridge), Bath (Abbey Church), through Radstock to Shepton Mallet (Church and Market Cross). Here spare a day or two for a visit to the charming city of Wells, with its beautiful Cathedral, Bishop's Palace, etc. Glastonbury is also quite near. Thence, by Wincanton to Sherborne (splendid Minster Church, Abbey Conduit, and Castle), Blandford, Wimborne (another fine Minster), Poole, Parkstone, to Bournemouth; distance about 120 miles. At Bournemouth you can take the gardens, chines, pine roads, and instantaneous shots on the pier and sands. Numerous excursions by road, rail, and steamer to the New Forest, Christchurch (magnificent Priory Church), Swanage, Corfe Castle, Lulworth, Weymouth, Portland, and the Isle of Wight. These will yield a fine harvest of beautiful views.—**W. H. H.**

4109. **Rapid Doublet.**—Certainly; have smaller

stops, always useful. Get a landscape lens; they are not dear.—**BROCKLEY ROAD.**

4114. **Aristotype Paper.**—S. J. Bradburn can purchase a good toning and fixing bath combined at E. Wade's, 188, Walworth Road, S.E., which gives any tone, from a purple-brown to a black and white, price 4d. per ounce.—**DOUGLAS LEUTY.**

4114. **Aristotype Paper.**—Get Fallowfield's catalogue, which gives components of his "combined toning and fixing bath," or, better still, get it made up by him. Immerse print direct from printing frame; ten or fifteen minutes gives a rich purple tone. Wash well for half-an-hour; squeeze on papier-mâché.—**F. C. A.**

4115. **Black Tones.**—Try this formula—  
Sodium tungstate ... .. 60 grs.  
Gold chloride ... .. 4 "  
Boiling water ... .. 20 ozs.

Mix. Have got very black tones with this bath.—**HYDRO.**

4117. **Retina of the Human Eye, Photographs of.**—Never yet successfully taken, but the difficulties appear by no means insuperable.—**X.**

4118. **Combined Toning and Fixing Bath.**—To prevent blistering is the principal advantage.—**BROCKLEY ROAD.**

4119. **Blistering.**—A little common salt in fixing bath and washing water will effectually stop all blistering.—**DOUGLAS LEUTY.**

4119. **Blistering.**—The mischief is very often done before they get to the fixing bath. Use all baths tepid; when they are toned put them into a bath of salt and water, and then into a tepid fixing bath, to which a few drops of liquor ammonia have been added. Cold baths are a frequent cause of blisters.—**HYDRO.**

4120. **International.**—It is well worth the money spent on it, and can strongly recommend.—**BROCKLEY ROAD.**

4121. **Black Paint.**—Lamp-black mixed into a thick paste by the addition of French polish makes a good dead-black.—**A. R.**

4126. **Toning.**—What do you mean by "toning for Ilford plates"? There is no form for toning solution given on their boxes. The formula which you give is rather weak, both in acetate and gold. Increase both by 50 per cent., and wash your prints in water in which a pinch of sodium bi-carbonate is dissolved. You should then have no difficulty in getting good tones.—**HYDRO.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S POST if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED:AM:PHOT:**

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

H. R. MOISER.—The MS. to hand for Reporter. Please accept many thanks.

J. H. TELFER.—The lens covers the plate well, and gives good definition, and the shutter, which will give a time or instantaneous exposure, is most ingenious, and works admirably. Call and see it. "At home" Monday 2 to 5, Thursday 11 to 1.

ARLINE.—See notice this week.

W. B. CASSINGHAM.—Mr. H. E. Shipton, Secretary of the O. T. C., had one made; but we know of no such camera in the market.

SNAP-SHOT.—They are both useful lenses, and worth the money.

A. E. EDWARDS.—Yes.

FATHER PHIN.—There are many in the market. We have written to you.

E. M. TUNSTALL.—Will let you know at an early date. Thanks for "copy," which is duly inserted.

E. M. H.—Of Gotz, 19, Buckingham Street, W.C. See article in vol. xi., **AM: PHOT: May 30th.**

LEO.—Set yourself up with an ounce bottle of pyrogalllic acid, to which add one ounce and a quarter of bromide of ammonium, and say twenty drops of pure nitric acid. This will form your pyro solution. The ammonia solution should be liq. ammon. fort., of which buy, say, four ounces. For use, take of the:

Pyro solution	..	...	...	1 oz.
Water	...	...	...	19 ozs.

and of the

Ammonia	...	...	...	3 drms.
Water	...	...	...	20 ozs.

Keep in separate bottles, using for a half-plate say one ounce of P and half an ounce of A, poured into a beaker, and then flowed gently over the plate, taking care that the developer covers the plate. It is best to proceed to develop slowly, using say three parts of the P solution to one of the A, adding the A as required.



FRED. KNOTT.—Could you not have fixed upon a title with some originality? We withhold the notice of your Portfolio Club, because we think it is due to the older club that you should start with a different title.

R. R. AMBLER.—We have written you at some length, and given you introductions to two good men in your district.

E. ROBERTS.—You will be able to get a very fair kit for the money. We should advise either 1 or 2. The camera and lens with which you took the print sent are simply useless. You are only wasting time and money.

T. KIDD, JUN.—Thanks for address. The prize is sent you by this mail.

E. HEALY.—The photographs will soon be out of the reviewers' hands, and shall be sent to you.

J. M. MELLIS.—We fear it will be almost impossible to bring out the book. The photographs shall, therefore, be returned.

G. B. BISAT.—See previous answer.

W. J. BROWNE.—The date has been altered, as requested.

L. D. P.—Sorry your prints were overlooked last week. We will now proceed to answer your questions. (1) We think not; keep to ferrous oxalate, and read the excellent article in *AMATEUR PHOTOGRAPHER*, August 8th, by Mr. D. E. Goddard. (2) The prints 1 and 2 are most excellent, and the original negatives must be very good. You have good tone, value, gradation, and detail in the shadows. Print No. 3 is from a thin negative; it has a soot and whitewash look. We are afraid you will not get a good enlargement from it. In No. 4 you have softness in the features, but the hands, especially the right hand, is out of focus, and the detail in the apron is much of it lost. You might, perhaps, get a better print with more careful exposure in enlarging. (3) We should advise you to try, if you have not done so, the borax bath, and by all means make a fresh bath for each batch of prints. We retain the "Bcathouse," "Selina," and "Marlow;" the others are returned.

FILM.—You should be able to take a very fair print from No. 1; it is rather lacking in density. (2) A slow printer, but otherwise an excellent negative. (3) A carefully-developed negative; the print might have been toned a little deeper. (4) The negative leaves nothing to be desired. The picture would have been improved had there been less foreground and more sky. We note that all your film negatives were developed with Beach's alkaline and pyro developer. The negatives and prints are returned.

H. I. C.—(1) It is stained by chemical fog. (2) Iridescent stains. (3) It can sometimes be removed by soaking in the following solution:—

Ferric chloride	...	50 grs.
Potassium bromide	...	30 "
Distilled water	...	4 ozs.

The plate may be left in for a minute or two; the fog will disappear, and, as a consequence, density will be reduced. Possibly the stains on prints are from hypy dirt or grease, or possibly due to the paper being stale.

S. R. RELP.—We admit the justice of your remarks. Possibly the apparatus did not deserve all that was said of it, but is it not also possible that the sample that was shown to the representatives of the photographic Press had the advantages pointed out by ourselves and our contemporaries? We return the circular.

P. DONALDSON (Calcutta).—All you asked us to do in your courteous note, and more, we had already done. See *AM. PHOTO*: August 1st, and *Phot. Reporter* for August. In both journals the exhibition is referred to at considerable length, and particulars are also included in the list of "Exhibitions" published in each issue of the *AM. PHOTO*.

J. H. TELFER.—The fitting of a roll holder to a hand-camera is not difficult, and you will find it of great value when travelling.

G. J. MOORE.—You would find much useful matter in "Photography for All" (Harrison), or "Experimental Photography" (Leaper), both published at 1s. Stop down your lens. We shall be pleased to advise you upon any matter.

A BEGINNER.—You have turned out very capital work, considering the tools you are working with. Your landscapes are good, but be careful in the introduction of figures. 1 and 2 are the best. We shall be glad to see further work, and now return the prints sent us.

C. DAVIES.—The bath had not sufficient gold. Your negatives are rather thin, but with care in printing in diffused light, and a carefully prepared toning bath, you should be able to turn out much better work than that sent us. Your untuned prints show that you might have printed deeper. A little more practice and a careful attention will, we doubt not, soon enable you to send us better pictures.

A. C. TAYLOR.—Medal will be sent on shortly.

A. THOMAS.—The "dark-room" shall be added, and we give a small note in this issue.

GEO. J. JONES.—Afraid we cannot now trace your prints. Send us others, and state the following particulars—lens used, stop, exposure given, make of plate—and we will try and help you.

H. J. C.—Very pleased to receive prints for "Hospital Albums." Kindly write titles, or number them and send list.

M. J. HARDING.—Shall be sending very shortly; we note address.

A. G. MEADOW.—The yellow light means yellow in contradistinction to ruby light in the dark-room.

BROOKLEY ROAD.—Thank you for the information about the village of Dartmoor; perhaps your friend will send us more specific information.

ELECTROGRAPH.—We know nothing of the plate named; the marking you complain of is due to a chemical effect set up by the paper coming in contact with the film. You had better send us one of the negatives. The three plates named are all first-class; we should place them B, A, C. You should have used f/8 or f/11. Shall be glad to see you any Monday afternoon or Thursday morning.

SUSSEX.—Your letter shall have consideration. We are, however, afraid that we cannot dictate as to printing or toning processes to be used by contributors to our "Monthly Competitions," though we thank you for the suggestions.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the *AMATEUR PHOTOGRAPHER* will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the *AMATEUR PHOTOGRAPHER*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"*Amateur Photographer*."—*AMATEUR PHOTOGRAPHER*, vol. viii. bound, ix., x., and xi. unbound; 2s. each, or exchange. — J. Hydes, Conisbory, Rotherham.

Vols. i. and ii. *AMATEUR PHOTOGRAPHER*; sell or exchange anything useful.—No. 77, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, E.C.

**Cameras, etc.**—Sands and Hunter's Tourist camera, three double backs, tripod and case, French, half-plate size, with carriers to take English half-plate; price £8. — 65, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, E.C.

"*Familiar Wild Flowers*," etc.—Exchange first 45 parts Cassell's "Familiar Wild Flowers" and 66 *AMATEUR PHOTOGRAPHERS* for good half-plate lens.

—W. Ackling, St. John's Terrace, Abingdon, Berks.

**Hand-Cameras.**—Swinden and Bapton's quarter-plate hand-camera, in good working order; price £5. — No. 75, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, E.C.

**Hand-Cameras, etc.**—Shew's Eclipse French half-plate size, three double backs, instantaneous lens and shutter, view-finder, brand new; cost £5; price £6. — 66, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, E.C.

For sale, Diamond detective (by Talbot and Eamer), takes 12 plates, 3½ by 2½, time and instantaneous shutter, nearly new; price 21s., or exchange for half-plate rapid rectilinear lens. — W. Hanton, Holmes, Rotherham.

For sale, No. 1 Demon, two bags; 3s. 9d., post-free.—Burton, Node Hill, Newport, I.W.

Hand-camera, quarter-plate, with Eastman's roll-holder, shutter, iris diaphragms; £4, or offers.—J., 21, Cheapside, Lancaster.

Quarter detective (as described by C. H. Lewis in 1890 "Year Book"), six double backs, fitted with Taylor's 5 in. detective lens, works at f/5; £7; or without lens, £4; cost £9 12s. last May. — Cooper, Cheshergate, Stockport.

Fallowfield's Facile hand-camera, R.R. lens, finder, £3 10s.—Whiteside, St. Nicholas, Cardiff.

**Lenses, etc.**—London Stereoscopic Co.'s black-band rapid landscape lens, 7 by 5, three stops, unsoiled; £2.—Miss Griffith, Littlethorpe, Ripon.

Half-plate portrait and landscape lens, perfect definition; 16s.; cost £2 10s. — S. Perrott, Simmons-court, Ball's Bridge, Dublin.

High-class lens (by Taylor and Hobson, Leicester), half-plate, for large heads and views, splendid definition; bargain, 25s.—Prosser, Ware.

5 by 4 extra rapid rectilinear, working f/8, 21s.; 5 by 4 rapid rectilinear, working f/8, iris diaphragms, 36s.; excellent lenses, practically new. — *Amateur*, 62, Stacey Road, Cardiff.

Whole-plate rectilinear lens for sale; price £2 15s. — Lawton, Idrigebay, Derby.

Optimus R.R. 7 by 5 lens, perfectly new and unscratched; 38s.; approval.—B. A., 7, Lichfield Road, Cricklewood.

**Lenses, etc.**—Lancaster's half-plate instantaneous lens, with shutter, nearly new; sell or exchange for Thornton-Pickard time shutter, 2½.—Craig, Tullamore, Ireland.

Half-plate portrait lens, with stops, 15s.; Gem camera, with nine lenses, cheap; stamp for particulars. — J. Bryan, Photographer, Bridlington, Yorks.

Ross' London 8 by 5 S.A. doublet lens, splendid condition, No. 18,310, with sunshade and stops between lens, 8 in. focus; price £2 5s.—James Wightman, Portadown, Ireland.

**Negatives.**—Fifty quarter-plate negatives, instantaneous views of London, suitable for making lantern slides from; price 1s. 6d. each; specimen print and list, six stamps. — John Stabb, 139, Queen's Road, Baywater.

**Outfit.**—Lancaster's 1890 half-plate Instantograph, lens, shutter, double dark slide, printing frames, dishes, vignette and cutting glasses, tripod, new, 76s.; case, 8s. 6d.; deposit; approval.—Smith, 16, King Street, Wigan.

**Roll Holder, etc.**—Quarter-plate Eastman roll-holder, newest pattern, and 1½ spools film, 30s.; six metal slides, 6s.—Wills, 21, Wordsworth Street, Cardiff.

**Sets.**—For sale, whole-plate camera, all movements, Ross' R.R. lens, four metal double backs, tripod, leather case, etc.; cost £23; offers? Owner giving up photography. — Sinclair, 139, Cannon Street, London.

Stereoscopic Co.'s half-plate camera, with tripod, three shutters, one porcelain dish, three ebony ditto, a few Ilford dry plates, etc., been used only one season; price £7 10s.; cost nearly £12. — E. Field, Prospect Hill, Walthamstow.

Watson's light Premier camera, four slides, lens, Newman's shutter, tripod, and leather case, almost new; price 17 guineas. — George, 1, Upper Beulah Hill, Norwood.

Quarter camera, stand, lens, with revolving diaphragms, two double backs; price £1 11s. 6d.—Camera, 102, Brockley Road, S.E.

For sale, Lancaster's 1890 Instantograph, slide, and tripod, fitted with Optimus 6 by 5 R.R. lens, condition equal to new; cost over £5; price £4.—Thos. Burnell, Bradmore Coll., Chiswick, W.

Fallowfield's half-plate folding mahogany camera, leather bellows, rising front, one single and one double slide, four extra fronts, Lancaster's Instanto lens, with iris diaphragm and instantaneous shutter, folding tripod, capital burnisher, 9 in. roller, and lamp, all in excellent condition; lot £4, or separate. — Apply, D. Padgham, Northiam, Sussex.

Camera, Lancaster's International, whole-plate, complete with lens, two double backs, half and quarter plate carriers and stand; £6; or exchange for good half-plate camera. — No. 76, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, E.C.

Rough's portable 10 by 8 camera, three double slides, waterproof case, Ross' No. 10 P.S., sliding tripod, perfect condition; £14; deposit. — Colonel Malden, Ventnor.

Whole-plate Lancaster's International camera, extension bellows, every movement, rapid Rectigraph lens, iris diaphragm, tripod, double dark-slide, carriers, Simplicity shutter, also band shutter for whole-plate instantaneous lens, half-plate burnisher, enlarging easel, box of scales and weights, three whole-plate printing frames, cutting shapes, vignetting glasses, developing trays, four 12 by 10 porcelain developing dishes, etc., all as good as new; price £11.—Felding, West View, Great Horwood.

Half-plate leather bellows camera, square, one single, two double slides (by Fallowfield), Lancaster's Instantograph lens and shutter, wide-angle ditto, quarter-plate Optimus portrait ditto, quarter-plate Lerebours ditto, burnisher, changing bag, lamp, printing frames, and a lot of sundries; cost £11 11s.; price £5 10s.; a bargain. — W. North, 62, New Road, Aylesbury.

Quarter Instantograph outfit, three slides, canvas case, focussing cloth, focussing glass, hardly used; approval; 45s.—Hain, Willesden Green.

Half-plate old pattern Instantograph, one double back, tripod, good condition, 27s.; 7 by 5 Optimus R.R., nearly new, 38s.; 6 in. top Ashford's tripod, nearly new, 15s.; eight half-plate Tylar's slides, two screens, 20s.; good single lens and pneumatic shutter, stops, 10s., nearly new; Hinton's Academy R.R., 10s.; drop shutter, new, two backs, 3s.; syphon washer, 3s. 6d.; quantity of dishes, cutting shapes,



etc., cheap, carriage paid. — John Avery, 45, Park Street, Dorset Square, London.

Quarter-plate camera, with dark-slides, in case with partitions, six Tylar's metal dark-slides, with adapter for above, rapid rectilinear lens, drop shutter, and light portable tripod stand, with adjustable ball head, complete; 100s.—Mr. Lumley, Dale End, Kirbymoorside.

Stripping Film. — Two 48 rolls half-plate Eastman's stripping film (extra-rapid), with skins; 22s.—Gunn, 45, West End Park Street, Glasgow.

Tandem.—Marlboro' Tandem, latest pattern, not ridden 20 miles; cost £36; price £20; carries photographic apparatus; photograph sent.—Pitman, Amen Corner, E.O.

Tripod.—Watson's latest four-fold Cyclists' tripod, sliding joint, stands 58 ins., quite new; cost 30s.; sell for 20s.—Cooper, Cheestergate, Stockport.

### WANTED.

**Cameras.**—Half-plate International or other good camera, must be equal to new.—Lowest price to A. Vigar, 77, High Street, Ramsgate.

**Camera, etc.**—Whole-plate camera, three double dark-slides, in good condition, also 15 by 12 camera, with slides, as above.—Address, stating lowest price, to B., 49, Birkin Avenue, Nottingham.

**Enlarging Lantern.**—Enlarging lantern, in exchange for "Hammonia" type-writer, in perfect condition; particulars—Harvey Preen, Chartered Accountant, 17, St. Helen's Place, London.

**Lantern Slides.**—A few good lantern slides of geysers, taken in Iceland or Yellowstone Park.—Alfred Parr, Beoley, Redditch.

**Lens.**—A good quarter-plate lens, in exchange for a splendid half-plate single lens, with shutter.—

Give description to F., AMATEUR PHOTOGRAPHER office, 1, Creed Lane, E.C.

4 in. W.A.R. lens, by good maker. — State lowest price to Appleton, South Stockton.

**Outfit.**—Half-plate outfit, approved; exchange new 6 guinea banjo in case; appointment.—F. Marchant, 87, Asylum Road.

**Retouching Desk.**—A retouching desk.—M., 28, Mount View Road, Stroud Green, N.

**Roll-Holder.**—Eastman quarter roll-holder, good condition, cheap.—H. Telfer, 141, King Henry's Road, Hampstead.

**Set.**—Whole-plate outdoor apparatus, complete.—Lowest price to J. Barrett, 5, Darlington Street, Wigan.

**Shutter.**—Good time and instantaneous shutter, in exchange for good revolver.—Johnson, 143, Varna Road, Edgbaston, Birmingham.

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### NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.	Twelve Months, 10s. 10d.
POSTAL UNION .....	6s. 6d.	13s. 0d.
INDIA, CHINA, ETC. ....	7s. 6d.	15s. 3d.

### NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to FERRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer* 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

## "Amateur Photographer" Monthly Competitions.

### No. 16.—INSTANTANEOUS PHOTOGRAPHS, ANIMALS, ETC.

**Prizes—Silver and Bronze Medal with Ribbon and Clasp.**

ONE PRINT ONLY. Must be sent in on or before the 14th September.

### No. 17.—ENLARGEMENTS.

**Four Prizes.—Two Silver and Two Bronze Medals with Ribbon and Clasp.**

ONE PRINT ONLY. Must be sent in on or before the 1st October, to

THE EDITOR, "AMATEUR PHOTOGRAPHER," 1, CREED LANE, LONDON, E.C.

All photographs criticised, and several reproduced every month, in the "PHOTOGRAPHIC REPORTER," PRICE ONE SHILLING.

# Elliott & Son's "BARNET" Dry Plate

Reasons why all Amateurs should use them:

Because they are evenly and thickly coated; Rich in quality; and are absolutely reliable. They are inexpensive, quickly developed, and never frill. And although they are very Rapid, they are at the same time easy to manipulate, and allow of great latitude for over and under exposure!

ORDINARY	{	4½ by 3½	..	..	1/0 per dozen.		EXTRA RAPID	{	4½ by 3½	..	..	1/4 per dozen.
		6½ by 4½	..	..	2/3				6½ by 4½	..	..	2/11

To be had of all Photographic Dealers, and Wholesale of

**ELLIOTT AND SON, Park Road, Barnet, Herts.**

### LOCKYER'S HYDROQUINONE DEVELOPER.

Great improvements have been effected in the manufacture of this well-known Developer. It may now be said to be the most perfect in the market for developing Plates, Transparencies, Lantern Slides, Bromide Papers, and Opals, giving better results than may be obtained by using any of the published formulae.

Sold in Bottles, 1s. 3d. and 2s. Post Free for 1s. 7d. and 2s. 6d. Sample post free for Six Stamps.

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# The AMATEUR PHOTOGRAPHER

Telephone No 1645

Telegraphic Address: VINEY, LONDON

Edited by CHARLES W. HASTINGS

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FRIDAY, SEPTEMBER 12, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

AT an industrial exhibition held last week at Guildford, photography formed one of the sections of the exhibits. Some fine example of Surrey landscapes were exhibited (not for competition) by Mr. T. M. Brownrigg, and Mr. W. Wainwright, in addition to excellent foreign views by Mr. R. Henning. The bronze medal was given to the local landscapes by Mr. J. R. Williamson. With such an abundance of landscapes suitable for the amateur photographer, it is surprising that no district society exists at Guildford.

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It is intended to form a photographic society for Southampton and district. Many amateur photographers, we understand, have promised to support the movement. Dr. Harris, the Medical Officer of Health, is the moving spirit, and will be pleased to give further particulars.

\*\*\*

THE question of photography with an object is always cropping up. Perhaps one of the most unique examples of such work has been done by Mr. Alfred Watkins, of Hereford—the inventor, by the by, of the "Exposure Meter"—who has made a complete survey of the dove-cotes and pigeon-houses of Herefordshire. The survey includes seventy-three distinct cotes or houses, some of them five hundred years old. The survey was made the substance of a paper read before the recent meeting of the members of the Royal Archaeological Institute held at Gloucester. The paper was illustrated by means of the optical lantern, with slides made from Mr. Watkins' negatives. It will be well understood how interested the audience must have been in such a paper. It has been our privilege to see some of the original photographs, and we were greatly pleased. The dove-cotes are many of them of rare beauty, and Mr. Watkins has been at great pains to take them under the very best conditions of lighting, etc. We believe this special work led to his inventing his now well-known "Exposure Meter." The collection of seventy-three such photographs only shows us what fields of work lie before those who are anxious to show their ability as photographers, and at the same time to have a definite object in view.

\*\*\*

WE have been asked to state that a Photographic Society has been formed at Morley, near Leeds. Already some sixteen members have joined, and the Secretary, Mr.

H. Leathley, 28, Peel Street, will be pleased to hear from any one in the district who may be willing to be enrolled as a member.

\*\*\*\*\*

THE *Chicago Journal of Commerce* says, "The camera that does the work for the rogues' gallery is concealed. The prisoner hangs his head, and refuses to look up when asked to do so, or shuts his eyes and distorts his face. The photographer makes a feint with the camera in sight, takes out the plate, and exclaims, 'Oh, pshaw! That is spoiled!' or words to that effect, and walks hurriedly out of the room. The prisoner raises his head at once and looks pleasant. He has outwitted the photographer. Then the concealed camera gets in its fine work, and the rogue is still more surprised and pleased at being told that he can go."

\*\*\*\*\*

WE have received from Herr Carl Srna a number of prospectuses of the International Photographic Exhibition Salon in Vienna, and shall be pleased to forward same on receipt of stamped and addressed envelope.

\*\*\*\*\*

The *Manchester Courier* says:

"The difficulty of identifying criminals by photography, even when this means is supplemented by the personal recollection of detectives, has often misled the police in their efforts to convict the old offender. To the well-known unreliability of the camera in producing on different occasions exactly the same impression, or even a sufficient resemblance to make identification a matter of certainty, must be added, in the case of criminals who w's' to avoid recognition in the future, considerable ingenuity in the manufacture of grimaces. The want of some more scientific method has led to the official adoption in France of an elaborate and almost unerring system of measurement. The system, which was invented by M. Bertillon, makes the subject of a short and interesting article in this month's *English Illustrated Magazine*. The success of this anthropometrical system may be judged from the fact that the French authorities, with an experience in the measurement of nearly 150,000 subjects, have not yet found two cases in which all the measurements were alike, and exact duplicates of two or more marks have never been found on different individuals. One of its great advantages is the power it gives of classifying the photographs of criminals according to the length of the head—large, medium, and small; and according to the width of the head, and so on. The subdivisions are thus reduced by various measurements, until the number of photographs in each section is sufficiently small to be readily referred to."



THE *Daily News* has the following reference in their issue of the 9th inst. upon the question of a National Gallery of Photographs:—

"We threw out a suggestion last week to the effect that photography can now be made to aid in art culture to an extent that has never heretofore been contemplated, nor indeed till quite recently been practicable. Mr. C. A. Ward again writes us:—The thing to be attempted is this: take, say, the Dresden Gallery, which amongst its 2,200 pictures is very rich indeed in *chefs d'œuvre*. Have them all well photographed, reduce every picture to a uniform size, that of a threepenny-piece, and place some 500 of them in their rotation, and with the reference numbers of the gallery itself upon a card. In this way five cards would sum up the contents of the entire Dresden Gallery. Every public gallery in Europe could be similarly transferred to cards by photographic processes. Enough would be realised if we could bring the image of any picture out of its European gallery before us in a moment, for no one in his right wits would resort to a photograph or to an engraving to study colour from. But what could be studied by the aid of photography is drapery, treatment, form, and design. This will be quite sufficient to lay well and solidly the foundation of a quite new study—that of comparative æsthetics, a study heretofore non-existent in art, except in the minds of the very greatest painters, Raphael, Buonarrotti, Titian, Rubens, and a few more men who travelled, thought, and saw. England should begin and photograph all her own pictures first, and then reduce them on sheets as above. Then we should invite the co-operation of other countries and propose to present them with our gallery in miniature in exchange for that of their own. If co-operation failed, we could do their galleries for ourselves, and the photographs so obtained would also sell with the public here."

\* \* \* \*

At the recent meeting of the Pharmaceutical Society, held at Leeds, Mr. C. H. Bothamley, F.I.C., F.C.S., read a paper on "Alkaline Sulphites," and referred to the increasing importance of such chemicals for use as disinfectants; he described their character as met with in commerce, and enlarged upon their great value to workers in photography.

\* \* \* \*

MR. FREDERIC HARRISON's article in the *Nineteenth Century* upon a "treasure-chamber for posterity" is attracting some attention. It is proposed to build a vaulted chamber to occupy no space at all on the surface, or none that man will ever want. Salisbury Plain is suggested, or a disused mine might be utilised. The author says—

"Nothing is simpler than a few vaults dug, say, underneath Stonehenge, cased twenty feet thick with the strongest known cement. A plain granite portal with a suitable inscription would be the sole architectural feature. When finished and filled, the museum would be solemnly closed up with twenty or thirty feet of cement, and a plain granite block between the granite piers would finally bar the entrance. There would be neither doors, keys, nor locks. Nothing but a gang of navvies, working for weeks under a staff of engineers, could ever open it again. It would need no guarding, no insurance, and no outlay. Fire, destruction, contractors, even an earthquake, could not touch it. So long as this island keeps its head above the German Ocean, so long the national safe would exist. The national safe might consist of a gallery with a series of subterranean vaults, like the catacombs at Rome or the chambers under the Pyramids. Each century, having opened its own vault, might make its own deposit, seal it up, and finally close the general entrance in the same way, or as its own improved scientific knowledge might suggest. The tenth vault might hold a special and fuller collection, as being the more distant and liable to decay."

The vaults are to contain, say:

"A few precious poems or the like might be printed on vellum or composition, and secured in hermetically sealed glass cases. Photographs on stone, similarly protected and with all light excluded, might remain for centuries. A few choice paintings, if needful on panel, or on porcelain or ivory, might be sealed up in air-tight boxes. If experts could suggest a mode of protecting photographs from decay, or of transferring a photographic picture to some indestructible substance, it is clear that we might preserve for the twenty-ninth century photographic portraits of our great men,

views of our public buildings, of our daily life, of many a historic incident. And why should not the phonograph be tried also? The Laureate would recite 'The Princess,' and his chosen bits from 'In Memoriam' into a phonographic box, which it would be the business of Mr. Edison to protect for a thousand years. A copy of the 'Encyclopædia Britannica' would give the twenty-ninth century an adequate idea of our present knowledge and opinions. Models of a locomotive, of an ironclad, of the Forth Bridge, of the House of Commons, might be thrown in, along with a dressed model representing Mr. Irving in 'Hamlet,' and a fine lady dressed for a drawing-room."

Mr. Harrison's is what may be called a large order for posterity. It will be interesting to note how the matter is received by the public. The reference specially to photography is interesting, but, in our opinion, the probabilities of a print from a photographic negative being of any service in ten centuries are exceedingly remote.

\* \* \* \*

WE have received from Mr. Birt Acres, the Hon. Secretary *pro tem.*, a copy of the memorandum and articles of association of the "Photographic Manufacturers and Dealers' Association of the United Kingdom." It appears from the memorandum of association that it is formed: (1) To promote the interests of the trade generally; (2) To protect members against persons whose character or circumstances render them unworthy of mercantile credit, and to promote the prosecution of fraudulent debtors; (3) To effect the payment of debts due to members, to facilitate the prompt and economical realisation and distribution of estates, etc.; (4) To keep a register of all persons who may become bankrupt; (5) To effect as far as possible the federation of manufacturers of, and dealers in, photographic appliances for promoting the general interests of the photographic trade, and dependent or affiliated industries; (6) To suggest and support measures for the protection of traders and the improvement of commercial law; (7) To co-operate or amalgamate with any other association having similar objects, and to procure from and to communicate to them such information as may be considered likely to promote the objects of the association; (8) To promote the interests of the photographic trade by holding exhibitions of photographic apparatus and allied appliances, if thought desirable, and (9) To do all other such lawful things as are incidental or conducive to the above subjects.

The Association will be registered under Section 23 of the Joint Stock Companies Act, 1867, which provides special privileges for an Association, the members of which receive no dividend, bonus, or any other profit, all income and property being applied solely towards the promotion of the objects of the Association.

The annual subscription is fixed at £5 5s. for members admitted during the first year, after which an entrance fee of £5 5s. will be charged in addition to the annual subscription.

The officers are not yet, we believe, appointed, and the President's name does not appear on the circular before us, but the suggested Vice-Presidents are: \*George Mason, Glasgow; \*J. Stuart (Ross and Co.); J. J. Atkinson, Liverpool; J. T. Chapman, Manchester; \*W. F. Lancaster, Birmingham. Council: \*Conrad Beck (R. and J. Beck); \*T. R. Dallmeyer, \*A. H. Harman (Britannia Works Company); \*W. H. Walker (Eastman Company); \*Geo. Houghton; Thomas Watson (W. Watson and Sons); J. T. Sandell (R. W. Thomas and Company, Limited); \*A. C. Edwards (B. J. Edwards and Company); \*F. W. Hindley (J. Fallowfield); \*J. B. Payne (Mawson and Swan); \*Butler Humphreys (London Stereoscopic Company); — Wratten (Wratten and Wainwright). The names marked with an asterisk signify that consent has been given to act subject to election at the general meeting.



## Letters to the Editor.

### CELLULOID FILMS.

SIR,—In your article on films which I eagerly read there was no notice of the Carbutt film sold by the London Stereoscopic Company; this preparation seems, as far as my small experience goes, to be a most pleasant article to manipulate, no cockling, and hardly any tendency to frill though several of my negatives were sorely tried by lengthy development; in one dozen 8 by 10 films, however, I had two so badly spotted with pinholes as to render the negatives almost useless to print from, and I would also venture to suggest to the makers to put the all-important notice, "The matt surface is the back of film," in clear print on the front of the packets under the other instructions, instead of in rather indistinct type at the back, for, not seeing this warning I opened the various envelopes in the dark-room, then was puzzled as to which, the matt or the shiny, was the sensitised surface. Arguing from experience with glass plates, Vergara films, and Eastman stripping films, I carefully placed eighteen of various sizes in turn in the film holders, exposed their matt surface to the view with the gratifying result that I now have a series of indistinct negatives quite up to the artistic mark! Can any of your readers give their experience of these films? I used the pyro developer, and with the two sheets rightly exposed, *i.e.*, glazy surface outwards, I have got fair pictures.—Yours faithfully,

FILMS.

\* \* \* \*

### THE AMMONIA NITRATE PROCESS OF SILVER PRINTING.

SIR,—In the AMATEUR PHOTOGRAPHER, January 17th, 1890, p. 42, Professor Burton writes: "To make the sensitising solution we may take 1 oz. of silver nitrate, and dissolve it in 5 oz. water. We then divide the solution into two equal parts, and to one of them add strong ammonia till the dark precipitate first formed is redissolved. The solution [?] which] is then divided into two equal parts, and to one there is added a drop or two of litmus solution, enough to make the silver solution distinctly blue. Nitric acid is cautiously added till the colour is changed to red. The two portions of the solution are now added together."

In reading the directions thus given I concluded that the solution (5 oz.) is first divided into equal portions,  $2\frac{1}{2}$  oz. each. One  $2\frac{1}{2}$  oz. is treated with ammonia, and then again divided into two equal portions—10 drms. each. Then one 10 drms. is treated with nitric acid. Then the whole is added together, and we have the original 5 oz., plus the ammonia and nitric acid.

But when I came to the Professor's words, "the two portions of the solution are now added together," I was stumbled, for we ought to have three portions to add together, *viz.*,  $2\frac{1}{2}$  oz. simple silver solution, 10 drms. silver solution + ammonia, and 10 drms. + ammonia + nitric acid.

Or are the words, "The solution is then divided into two equal parts," a mistake, and we are to treat the one  $2\frac{1}{2}$  oz. with ammonia, and the other  $2\frac{1}{2}$  oz. with nitric acid?—I am, yours sincerely,

DAVID ANDERSON BERRY, M.B., etc.

September 6th, 1890

\* \* \* \*

### ECCENTRIC ADVERTISEMENTS.

SIR,—I see various advertisers have taken to having their advertisements inserted upside down in the AMATEUR PHOTOGRAPHER. I do not know if they think it will attract attention, but I think they are mistaken to go in for this eccentricity, as to me, and I expect to most others, it is only annoying. I do not trouble to turn my paper upside down to read them. The advertisement pages in the AMATEUR PHOTOGRAPHER are so few that no special eccentricity is required to draw attention. Let me, however, commend for neatness, effect, and ready reference the advertisements last week of Messrs. Swift, Houghton, Whittingham, etc.

I see no advantage gained by the small type of the Eastman advertisement. A whole blank page is not a bad idea, but why not a legible name and address, like Messrs. Swift, etc.?—Yours truly,

READER.

### DARK-ROOMS IN SWITZERLAND.

SIR,—The following few notes on Swiss dark-rooms may add to the knowledge of some of your readers.

*Bas.*—At the "Grand" I was allowed to hire a bath-room and convert it. I should be glad to know if a properly fitted dark-room is now provided gratis, at either hotel, for the use of visitors.

*Montreux.*—Fransioli is an optician, and is a capital hand at repairs to photographic kit. He keeps a stock of materials and Lumiere's plates. If he has a properly appointed dark-room it must have been very recently erected.

*Territet.*—Englemann, the chemist, is most obliging, and has a capital dark-room in which three or four can work in comfort. He keeps English and French plates, besides materials, chemicals, etc. I think the charge for the use of his dark-room is 8s. 4d. per month.

*Territet.*—"Alpes and Grand Hotel:" there is no dark-room provided gratis for the use of visitors, but photographers are sent to Englemann's, whose shop is in the basement of that building.

T. B. COOMBE-WILLIAMS.

September 6th, 1890.

\* \* \* \*

### ANOTHER MAGAZINE CAMERA.

SIR,—I notice a letter in last week's AMATEUR PHOTOGRAPHER on hand-cameras, in which my Guinea detective is favourably mentioned. Your foot-note to that letter leads me to announce rather earlier than I had intended to, that I have a magazine camera at a guinea and a half, almost ready for sale.

It is a modification of, and not a substitute for, the Guinea camera, the issue of which will still be continued. Full particulars of the magazine camera will appear shortly in your columns. —Thanking you in anticipation, I am, yours, etc.,

Highgate Square, Birmingham.

WALTER GRIFFITHS.

September 8th, 1890.

\* \* \* \*

### BY DEVIOUS MEANS.

SIR,—I do not go in for making lantern slides, and therefore am perhaps hardly entitled to an opinion on the question of Mr. Christian's experiments with coloured slides.

I cannot help observing, however, that he and Mr. Blackmore appear to have taken much trouble to produce by roundabout methods, such results as they admit are readily given by Alpha plates, and I confess I do not see for what purpose they have worked. The bleaching by the bichloride of mercury adds as large element of uncertainty as to the permanency of results, and would be a questionable method if the plates subjected to it offered any advantage. As they do not, it is a waste of labour and an introduction of danger.—Yours, etc.

JAN.

\* \* \* \*

### PRINTING THROUGH GREEN GLASS.

SIR,—May I be permitted to give my experience of printing through green glass, a method so highly recommended in a letter which appeared in your columns a few weeks ago.

I find that a print is never done unless it is exposed to the sun for a full two days, and when finished always turns to a weak slate colour, which is far from pleasing. Further, unless the glass is placed outside the printing-frame, which is rather awkward, great pressure is put on the negative, often resulting in the smashing of both.

For printing from weak negatives perhaps there is an advantage in using this green glass, but, on the whole, I cannot see that it has the merits claimed for it by Mr. Colledge.—Faithfully yours,

REGINALD BENNETT.

September 6th, 1890.

\* \* \* \*

### MR. PERCY MORRIS'S PAPER ON ENLARGEMENTS.

SIR,—I have tried to tone some prints on Ilford slow bromide paper with the ferridcyanide of potash and uranium nitrate bath, recommended in the above paper, but have not been able to do so.

I have been able to get a splendid brown tone, but in the "thorough" washing before toning the brown tone has dis-



appeared, and the colour of print has become the same as before toning. I washed about one hour in running water.

Would the fact that the nitrate of uranium had very slightly deliquesced have anything to do with it?

The ferridecyanide was absolutely pure.

Will Mr. Morris advise me what to do, as I should like very much to fix the tone, which was very rich? Or can you tell me of any other toning bath for bromide paper?—Yours, etc.,

September 6th, 1890.

EDW. B. WAIN.

\* \* \* \*

#### A NEW PORTFOLIO CLUB.

SIR,—Would you be kind enough to intimate in your most valuable journal, that a Portfolio Club has been started bearing the name of "Shade and Co.," that I am the Hon. Secretary of the same, and should be pleased to forward particulars to intending members on their forwarding stamped and addressed envelopes.—I remain, yours faithfully, FRED KNOTT, F.C.S.

12, Hyde Vale, Greenwich.

\* \* \* \*

#### ARISTOTYPE PAPER.

SIR,—Will "A. W. D." kindly state the exact proportions of chloride of gold and sulphocyanide of ammonia to be used in the toning solution which he recommended in the AMATEUR PHOTOGRAPHER of last week, for toning aristotype prints.—Yours,

B. S. A.

\* \* \* \*

#### PRINTING.

SIR,—I wonder if any of your readers have tried the following plan for obtaining a soft vignette with the much-abused glass sold for that purpose? Of course, when I started pyro-staining everything, I bought, in common with several other useless articles, two or three of these artistically-coloured glasses, which—until the other day, when I found that, by taking several vignettes of different sizes, and beginning with the smallest, and so on upwards for about five minutes each, I obtained as soft a vignette as I could wish for—had never justified their existence.

The glasses, of course, are to be placed outside the frame. This may be an old dodge, but if so I am sorry. I should have told you sooner, but I only just found it out myself.—Yours truly, Sep'ember 9th, 1890.

EDGAR BEST.

### Without a Camera.

By H. P. ROBINSON.

THERE are those who pride themselves on being "opportunists," and opposed to them are those who more wisely rely on careful study than on the chance that may not come. The former when he visits a district near to him sallies forth fully equipped with camera and accompaniments, without any regard for what he may find for subject, while the latter will "meditate his theme," and carefully study the times and seasons, lines, and light and shade, and the suggestion they give for picture-making. I have not a word to say against opportunism in the right place and with the proper tools, and I take these to be hand-cameras and quarter-plates, but for anything larger, or that expects to be "hung," a complete study of the subject to be done is a more direct way to success than hurry or snap-shotism of any kind. This is one reason why I left my camera at home. The other, and still better reason, was the *Mayfly* was on!

This is how it was. One afternoon, towards the end of May, I received a telegram containing nothing but the magic word "Mayfly." The next evening I found myself sitting before a great wood fire, for the nights were chilly, in the oak-panelled hall of an old mansion in South Shropshire, discussing fish and fishing, rods, tackle, and flies, with one whose knowledge of these things is greater than mine because his opportunities have been greater, but who does not love the sport that brings you face to face with rural

nature more than any other, better than I do. We talked over the fishing history of the passing spring—how the March Brown and Blue Dun had been the most killing flies, which led to an argument on that most curious phenomenon in insect nature, the transformation of the sedate, straight-flying blue dun into the erratic and sprightly red-spinner, and other wonders of piscatorial entomology.

We had talked on to what I thought was early bed-time when my host said, "You must excuse me for a short time; I have a few plates I am anxious to develop."

Now think of that! I had determined for once to get away from practical photography and allow myself only to dream of it, and to prepare for the coming days. I had packed my camera before leaving home, but tore myself away from it at the last moment, determined to be free and laugh the tyrant to scorn for once, and left orders that nothing photographic, not even the AMATEUR PHOTOGRAPHER, should be sent after me. I did not know there was a camera in the county that I could get access to, when, lo! here were some plates to develop!

During my host's absence I walked out into the night to have a look at the country, of which I had had only a hurried glimpse on arriving, for the moon was nearly full, and the sky clear. In front of the house is a semicircular lawn large enough for half-a-dozen tennis courts; from the edge of this lawn the grounds descend to the river over fields in which horses and sheep are resting. Here and there are picturesque groups of trees; along the valley winds the river, now in the moonlight looking like a silver thread, with here and there broader patches; the ear tells you that it is full of the rippling streams, eddies, and little waterfalls the flyfisher loves. Beyond the river are meadows backed by great woods—now gloomy in the moonlight—on rising ground opposite, in which is promise of another kind of sport later on in the year; towering above and beyond them is a heather-covered mountain, in which grouse may be found, while further yet in the dim distance are the mountains of Wales. Who does not enjoy a night like this in a mountainous country—the distant sounds, you can only hear by listening; the bracing air, and the perfumes of the spring, over which that of the "May" predominates? This has been an unusually luxuriant year of blossoming hawthorn, and during my visit the hedges were densely white with it.

But this will never do. I commenced to write a photographic paper, although I might be deprived of my camera for a time—and find myself out in the moonlight cataloguing nature like an auctioneer among the old masters! When I went into the house my host met me with a dripping negative in his hand. What were the first words he said? Why, of course, they were those used by nearly every photographer, amateur or professional, under the circumstances, "Can you tell me the cause of," etc., etc.

I will not trouble you any more with our fishing, except to say that it was most successful. It is said that a perfect Mayfly season, with all the conditions right, only comes once in ten years. This was one of the fat years, and our creels were often filled. The wind, weather, and water were favourable, and the trout were in the humour.

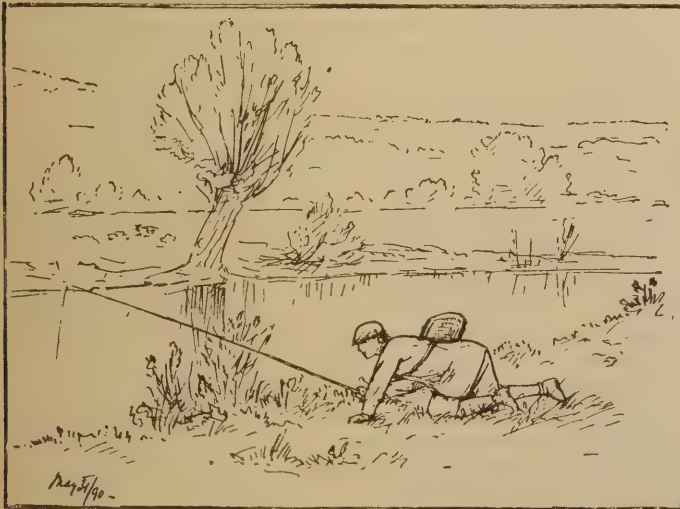
Now there is this about fishing which I do not find so fully in any other occupation—it leads you into beautiful spots, and gives you time to contemplate them. A fisherman, as a rule, moves gently and is silent, therefore he does not scare nature; the merry sandpiper as he skips along the gravelly margin of the stream or skims its pools is not frightened; the water-vole will go on with her occupation, and, as I saw her this time, teach her young to swim, without fear of molestation; even a weasel that I nearly caught asleep, did not run away very fast. When the fish are not



taking, you have time to study and decide as to what you will photograph when you can give up your whole mind to it. Let the note-book be always at hand. Do not attempt to trust to memory; noting down induces closer and more exact observation. If you see a picturesque scene, make a rough sketch and notes, and do not omit the time of day and year; and if you will analyse the effect, and write down your impressions of *why* the scene is beautiful, you will be teaching yourself a valuable lesson; the attempt, even if you do not succeed, will do you good. It will teach you a lesson in the art of seeing, and the art of seeing includes much of the artistic faculty. Shall I give you examples of notes and sketches?

Coming up to the river in the late afternoon, you notice that the scene before you is very beautiful. You have been here a dozen times before, but it has been in the morning, and you have not noticed anything remarkable about it. What is the difference? Why is this scene, so ordinary in the morning, turned into a poem in the afternoon? Put down in your note-book what you see before you, and it may enable you to understand. "The high clay bank of the river is in shadow, filling with the water about one-third of the picture, the bank getting narrower as it runs into perspective; the distant woods are dark indigo in colour, and between the woods and the river runs a narrow streak of meadow in the brilliant light of the sun which is lowering to the right, the thousands of buttercups catching the sun's rays helping the luminous effect. One-third from the left, beyond the meadow, arises some smoke from a scutch-burner's smould'ring fires, which breaks up and relieves the gloom of the woods. To the left a clump of straggling alders breaks the monotony of the lines, and to the right in the illuminated meadow are some black cattle. They are small, and apparently unimportant, but are the bits of emphasis wanting to complete the picture."

As a specimen of the kind of rough sketch I recommend, I give one of a fishing incident.



A wily old trout had been rising all the morning but would not look at the artificial fly, so we determined to tempt him with other lures. The sketch represents the fisherman "stalking a trout," and offering him a live fly. It has to be done very gently, the stalker keeping out of sight. We had that trout at dinner. The incident could not have been done justice to at the time, even if everything had been ready, for no true fisherman would allow a camera to come near him at such a momentous time, but it is jotted down for execution at a favourable opportunity.

## The Stereoscope.—IX.

By VALENTINE BLANCHARD.

IF the last two chapters have been carefully considered, the amateur will see how easily he may, with very little alteration to any of the small cameras now usually made, proceed to make stereoscopic pictures.

Before starting the reader seriously to work, a word with fitness comes in here about the proportion of the pictures. Now the old form of stereoscope absolutely controlled the size of the stereoscopic slide, as it was called for want of a better name; but should a stereoscopic craze set in—by the way, there is a great want of a craze just now—then many improvements could easily be made in the instrument for viewing the pictures, and some of these we shall deal with later on. We will assume, therefore, we are not so slavishly bound as in old days, and can vary very considerably the proportion of the picture. Of course, there must be limitation in its width, for at present the writer is not prepared to recommend a separation of the pictures greater than 3 in. from centre to centre. This would enable two quarter-plate upright pictures to be placed side by side. For architectural and figure subjects a moment's reflection will show what a great improvement there would be upon the old proportions. We should have much greater freedom in dealing with the subject, and it is obvious that a portrait subject, or a view of a cathedral, 4 in. by 3 in. would be much more agreeable in proportion than the same subjects 3 in. square.

An alteration in the focal length of the eye-pieces of the stereoscope would enable cabinet or even larger pictures to be produced, and a few years ago Sir Howard Grubb had several conversations with the writer on the desirability of introducing a new form of instrument altogether, so as to create a fashion for cabinet portraits in the stereoscope. Some successful experiments were made, but it was found the time was not ripe, and he discontinued his labours; but taste has changed, and much, since then, and the army of amateurs has now become such a mighty one, that surely the time has arrived to resume them.

Mr. W. England, at one of the recent technical meetings of the Photographic Society, showed a French stereoscope that enabled whole-plate pictures to be viewed through it. It was rather an unwieldy instrument, and the low magnifying power of the eye-pieces made the pictures, when looked at through it, very little larger than the ordinary slides as seen through the ordinary stereoscope. There was one distinct gain, however; neither retouching nor grain of the paper on the photograph showed through the instrument. For portraiture this becomes an important consideration, and is a strong argument in favour of a reconstruction of the stereoscope to meet modern requirements. Bearing all written above well in mind, the possessor of a  $7\frac{1}{2}$  by 5 in. camera would do well, in the selection of his subject, to remember that he has two upright pictures,  $4\frac{1}{2}$  by  $3\frac{1}{2}$  in, well within his means, and by the plan suggested in the last chapter, the owner of a quarter-plate camera can make stereoscopic pictures 4 by 3 in.

Of course, some will argue the plan suggested would make upright pictures a necessity. Now, this by no means follows, for wherever necessary the pictures may be trimmed down to suit the requirements of the subject; but, perhaps, it might be well to pause here a moment to consider how many suitable subjects are never taken because many cameras are so constructed that oblong pictures are more easily produced than upright ones. A visit to any picture gallery will show that the artist is not bound by any of these considerations, but makes the proportions of his



canvas to suit his subject. This should be imperative with the photographer also; but a visit to a photographic exhibition reveals the fact that it is not so, for, with a few always striking exceptions, regulation sizes almost entirely prevail, and in landscape photography the ordinary oblong predominates. Now, there is a photographic adage that has by this time got the flavour of age upon it, and which the writer holds still true in spite of some advanced modern notions, and it is this, "Look well to the composition of your foreground, and the distance will take care of itself." If this be true when applied to ordinary landscape photography, it is doubly true when applied to stereoscopic subjects, for in giving stereoscopic relief the foreground is nearly everything.

An admirable illustration is before me as I write. The scene is Spithead, as seen from Bembridge in the Isle of Wight. The day is clear, and the whole coast line is clearly mapped out from the far-away Southampton Water, past Portsmouth Harbour and Southsea, and then low-lying Hayling Island is visible; and the reader will see the day is admirable for the observation. Now the moment the eye travels out to sea the power of estimating distance decreases with each mile of distance. The No Man Fort is away about three miles, and its companion the "Horse," nearly a mile further on, for these two forts mark the channel through which all our fighting monsters must travel on their way to Portsmouth, a good seven miles away. Now to trust to the evidence of the eyes without any other knowledge on the subject, the separation between the objects named does not appear more than a few hundreds of yards. Need it be said that this subject, unaided by a foreground, would be most unsuitable for the stereoscope, notwithstanding its beauty to the naked eye, aided as it is by the glamour of the stimulating sea breeze?

Mr. Traill Taylor, in an admirable article on the stereoscope in one of his year-books, refers to this deception of the eye at sea, and refers to a plan he adopted to make the stereoscope show more relief than was actually visible. He took two pictures of the coast line from points very widely separated, and so looked round the corners of the various indentations of the coast. These two pictures when put together in the stereoscope showed the varying distances in a remarkable manner. Of course, the picture was not really true, for the eye did not see it so; but one could imagine this expedient would be very useful for topographical military purposes.

(To be continued.)

## The Electric Light and Photography.—X.

By T. C. HEPWORTH, F.C.S.

(Concluded from page 153.)

SOME years ago a system which was at the time regarded as novel, and from which great results were anticipated, was exhibited in London. It was known as the Werdermann method of electric lighting, and its most noticeable feature was that it combined in one light the principle of the arc and incandescent systems. It might be correctly described, in fact, as an incandescent pencil of carbon, round which was developed an arc light. It was really founded upon a previous invention by Reynier, whose intention it was to combine the two systems as far as it was possible to do so. To this end he arranged the two carbons in an entirely new manner, making the lower one of large size, and giving it a fixed position, while the upper one, in the form of an extremely narrow pencil, less than a quarter of

an inch in diameter, rested upon it and pressed upon it with the force derived from a heavy holder. As the thin carbon was practically consumed at the point of contact, it advanced, owing to the downward pressure of the holder with which it was associated, but at the same time a considerable amount of ash accumulated. To get rid of this difficulty, Reynier caused the lower carbon block to revolve so that the ashes fell away as fast as they were generated. This rotary movement, of course, involved a train of clock-work, or other convenient mechanism, and at once the "sweet simplicity" of the contrivance disappeared.

In Werdermann's lamp this difficulty with regard to the accumulation of ashes was met in another way. He reversed the positions of the two carbons, placing the larger one uppermost, and forcing the narrow pencil which the other presented upwards against it by the action of a counterweight. The position and form of the two carbons is



shown in the annexed figure. The upper carbon is in shape like a pastrycook's bun, and it was held in position by a curved arm. The lower carbon worked in a tube, like a spring candle in its socket, only that the force which drove it upwards as it was gradually consumed was a weight. The ashes as they were formed fell away by gravity, and they were almost entirely due to the wasting of the lower carbon, the

heavy block above showing little trace of deterioration after several hours burning. The Werdermann lamp never, I believe, got beyond the experimental form; the reason probably being that it required a wasteful amount of electrical energy for its support. But it certainly had merit in preserving the point of radiance in one fixed position, and I have always thought that in a modified form it might for this reason be well adapted for lantern projection, although it failed to meet the requirements necessary in a lamp for general use.

The Werdermann principle seems to have been lately revived in the Russell arc lamp, which was recently brought forward in America, and which I believe has already made its debut in this country. The Russell lamp is said to burn twice as long as an ordinary arc lamp without retrimming or any other attention. The upper carbon is in the form of a disc, the edge of which is presented towards the pencil which forms the lower electrode. This disc slowly revolves, so that at every revolution there is a certain amount burnt off its edge; provision is therefore made for slightly lowering the disc as a whole at each revolution. The action continues in this way until the disc is almost entirely consumed. The Russell lamp will burn for eighteen hours, and by a slight modification of parts can be made to last for twenty-four hours at a stretch, and the cost of the carbons, weight for weight, is less than under the usual system of similar rods for positive and negative electrodes. The light being perfectly stationary, this form of lamp would seem to be specially adapted to that class of work where the point of radiance must be kept in unison with the centre of an optical system.

Werdermann published the results of many interesting experiments which he made in using carbons of different sizes in connection with one another, and showed that their shapes altered under the action of the electric current. The form of lamp which he ultimately adopted was founded on the following observation, which may be given in his own words:—"When the sections of the electrodes are nearly as 1 to 64, and they have been placed in contact, no light is any longer given off by the positive electrode [this is the upper one in the annexed cut]. The negative one alone produces the light. It is curious that when a voltaic arc is



set up between the two carbons, the smaller electrode is always shaped into a point, whether it be positive or negative."

Some time ago I arranged a modified form of Werdermann lamp for lecture-table demonstration, and I have always found it to act with extreme steadiness and brilliance. The upper carbon is of the shape already described, and is fixed upon an arm which projects from an upright supporting pillar. Upon the same vertical support, but lower down, is placed a lever arm, which holds in a clip the lower carbon (pencil), and which has at its free end a sliding weight, the position of which is governed by the amount of current at disposal. From experiments I have made, I feel confident that this form of lamp, if modified, to some extent would be serviceable for lantern work. One modification would be the sloping position of the lower carbon rod, which has already been illustrated in the Brockie-Pell form of regulator.

I have not in these chapters dwelt in detail upon the application of the electric light to studio work, because at the present time such an application is beyond the reach of the ordinary amateur. The arrangement generally adopted is to place a simple form of arc regulator in a large whitened concave reflector above the sitter's head, the direct rays being stopped by a shade. This reflector is moveable, so that its position can be shifted during the brief exposure necessary. It is within the power of any one resident in London to see the arrangement for himself by patronising one of the studios where the system is in use.



## Photographing in Iceland.

### IV.—THE ROUND TRIP IN DETAIL.

THE member of our party who "spilled" during the racing gallop across our only bit of flat country from Krisuvik to Eyrarbakki rose equal to the occasion. He was not very much hurt, though Providence alone only knows why. He's a substantial personage, and both he and his pony had an ugly fall among the lava rocks. But that's just some fellows' luck; they can't be killed or maimed with anything under an express train or an earthquake. If the accident had happened to one or two others of our party we felt sure that the business would have turned out serious. It appears that our friend's stirrup leather gave way, and hence the mishap. Of course our medical aid—we had two doctors in the expedition—was on the scene of the accident in double quick time, and—tell it not in Gath—both gentlemen seemed pleased at the bare idea that they had at length got a probable case. That's the worst of doctors—they always want to be doing something. The medical aid of our expedition was "called in" several times subsequent to the racing accident, and clever practical practitioners our surgical staff proved themselves. As a recognition of his escape from serious injury, the "spillee" stood a round—in fact, several rounds—of champagne bought at the store of a Mr. Le Folii, a gentleman who invited us to his house, where, with M. and Madame Le Folii and others, we spent a most enjoyable few hours. Here we were also regaled with bottled beer, the best and most luscious beverage possible, we thought, after having drunk scarcely anything but Scotch whisky for several days. Altogether M. Le Folii's was an oasis in the desert; we had music, singing, tobacco, congenial conversation, and the best of company to our heart's content.

Our camp was rigged in the garden attaching to Mr. Le Folii's house. We were very comfortable during the night, and rose early, afterwards having a refreshing swim

in the sea. Then we fell to hot coffee and breakfast, subsequently taking a stroll through Eyrarbakki, and learning something of its inhabitants. Eyrarbakki, as I have already said, is the only trading post on the south coast of Iceland. It is a quaint, primitive little village, all the houses of which, except that of our host, M. Le Folii, are built of turf. M. Le Folii's store is also an exception to the rule. The annual fair happened to be in progress during our stay, and the streets were filled with country people making their grass purchases. Tents about the size of a large umbrella, only square or oblong instead of round, were pitched on the road-side; ponies, which had conveyed the traders from near and far, hobbled about everywhere; an air of business fogged the otherwise perfectly clear and tranquil atmosphere. I wish I had understood Danish or Icelandic, for then I could have given my readers some idea of the style of bargaining and bartering in Iceland. From what I could understand of the proceedings, however, there was little, if any, of that element at Eyrarbakki Fair which one looks for at fairs in Ulster, Munster, Leinster, and Connaught. There was little cavilling and no "rowing." Money in Iceland is, of course, at a premium, the people largely exchanging fish, ponies, etc., for flour and other imported stock. Our camera men found plenty of studies at Eyrarbakki, and we each left the place with some feelings of regret. I must not forget, though, that from the neighbourhood of Eyrarbakki we got our first distant view of Hecla, the mountain, when we first saw it looming up above the horizon, being about fifty miles off. It was a dreadfully hot day—fancy, perspiring in the open air in Iceland!—but whether it was the heat or the magnetism of M. Le Folii's family, we didn't resume our march until about 3.30 p.m., making for the Thjorsa River. We gave M. Le Folii and his household a real English cheer before we started, considerably astonishing the natives with our great lung power.

On the way we halted at a farm called "Loptstadir," where the original promoter of the expedition insisted that we should have a dish of "skyr." We felt that our Danish-Icelandic fellow-traveller owed it to us to see that we were well treated and had no "larks" played on us, so we placed ourselves entirely at his mercy and the mercy of "skyr." Some of us, to this day, are sorry that we did; others of us rather liked the decoction. Personally, I should say that "skyr" is one of those things that one has to acquire a taste for—like black draughts and cod-liver oil. It is a kind—only a vile kind, mind you—of curds and cream; a heterogeneous mixture of milk, sugar, and rennet. Probably the nicest parts of it, when you can detect them, are the compounded sugar and milk. The people at the farm had a fairly good harmonium, and while we were "skyring," our chief guide, Thorgrimur Gudmundsen, further lifted us into the clouds with some exquisite Icelandic airs.

Here let me say that Gudmundsen is one of the best fellows alive—an accomplished linguist and scholar, speaking seven or eight languages, energetic, careful, and well grounded in the history of his island home, and travelled both at home and abroad; he is a splendid companion, and an exceedingly fit and capable guide. Standing over six feet in height, and finely proportioned, he can stand any amount of tough work, and proved a most invaluable acquisition to our party. He is the schoolmaster at Reykjavik, where he is popular and a general favourite with all.

There was nothing very particular or exceptionally interesting on the road from Eyrarbakki to the Thjorsa, excepting another slight accident, wherein one of our cavalcade was pitched over his pony's back. This accident, however, could have been avoided had the rider followed in the steps of those preceding him. But he was of an original and



inquiring turn of mind, which does not always pay in Iceland, particularly on pony-back. We crossed the Thjorsa River by ferry, encamping at Sandholafjerja Farm at about eleven o'clock. At this time we were two hours out from the Thjorsa. Our ride of nearly twenty miles had made us ravenously hungry, and we sat down to supper in superb trim for eating and—nightmare. But then it was all *daymare* with us in Iceland. The sun obstinately refused to give us a soothing dark half-hour, and we got more mixed, so far as time and night and morning were concerned, than ever. I happened to look out of the canvas at about 1.30 a.m., and found our artist painting away for dear life. When did that youth sleep—anyhow, and where?

We had all turned in for a good night's rest, thinking we needed it for the morrow. Another day's march would take us to the foot of Hecla, and we were delightfully uncertain as to what would happen when we got there. An eruption at Etna had been predicted for about this time, and there was just a vague possibility that Hecla might follow suit with a similar display. But, despite doubts and fears, we slept peacefully, and rose in the morning in improved condition. This brought us to the 10th July, our fifth day out from Reykjavik. We had, we were told, now got over the roughest part of the road; the travelling hereafter would be easier and more comfortable. For all these things we were duly thankful.

(To be continued.)

## The Kallitype Process.

As some slight discrepancies appear in the particulars of working the Kallitype process, as published last week, owing to a revision of the printed particulars, we publish, at the request of Messrs. John Lewis and Co., of Gladstone Road, Birmingham, the "instructions" as now issued by them:—

"Kallitype paper being so much more sensitive than ordinary silver paper, care must be taken to fill the printing frames, develop, etc., in a yellow light or weak day-light. It may be kept just as ordinary silver paper, only remembering its greater sensitiveness to light. Its rapidity is about six times that of ordinary albumenised paper.

"*Printing*.—Kallitype is not a *printing-out* process; the image before development is only a faint one. Care must be taken that the paper is quite dry when put out to print, or it will not be so easy to determine the proper exposure, and the resulting print will not be so good a colour. It may be necessary in damp weather to dry it carefully. If made too hot in drying, the paper will be fogged. Exposure: Five to ten minutes in a good light, or from two to three minutes in sunlight is an average exposure. When the detail in the densest parts of the negative is faintly indicated, the printing must be stopped, remembering that the whole shows but faintly before development. A very little practice will enable anyone to expose correctly.

"*Development*.—The prints must be quite dry before developing, they are floated face downwards upon the developing solution (see formula at end) (*used cold*), for ten or twenty seconds, and are then placed face upwards upon a piece of clean glass for a minute or two, to gain brilliancy and depth. They are next immersed in washing solution No. 1, where they must remain for at least twenty minutes, and a longer immersion will not hurt them. This washer may be used over and over again a great number of times, as long as it serves its purpose of removing the yellowness from the prints.

"A pair of small forceps will be found useful in developing, to avoid staining the fingers.

"When developing prints with plain, flat backgrounds, be careful to well shake the developing solution in dish before floating, otherwise markings will sometimes occur.

"The prints are next washed consecutively in No. 2 and No. 3 washing solutions (see formula); they must remain in each of these baths for about ten minutes, and after the last bath they are washed for a few minutes in water and dried. The prints

must be moved about freely in the washing solutions, and as soon as No. 3 shows the least tinge of yellow when viewed in bulk, it must take the place of No. 2, and fresh solution poured out for No. 3, otherwise the prints will be yellow.

### "NOTES.

"*Printing*.—If the print has been insufficiently exposed, it will develop very slowly, and will require a longer floating upon the developer. Meakiness is caused by over-printing, and if the prints develop very heavy and muddy, they have been *much* overdone. Be careful not to over-expose. Over-exposed prints readily develop stains and markings.

"*Development*.—The developing solution may be used over and over again, and with care will serve for a great quantity of prints. The developer which has been used should be kept separate, and when the prints show any lack of brilliancy, should be set aside to be restored. This is effected by adding to every 10 ozs. 20 gr. of nitrate of silver; dissolved in a *small* quantity of water.

"Prints not developed the same day as printed must be carefully kept quite dry.

"*Washing*.—Washing solutions for baths No. 2 and No. 3 must always smell distinctly of ammonia, or the prints will not be properly fixed.

"*Special*.—It is essential that all operations should be conducted in yellow light or weak daylight.

"When printing from very thin negatives, greater contrast may be secured by the addition of more bichromate of potash to the developer. A stock solution containing 8 gr. to the ounce will be found useful. One drop, or more if necessary, added to each 10 oz. of developer, will give greater brilliancy and contrast.

### "DEVELOPING SOLUTION.

Nitrate of silver .. .. .	50 gr.
Citrate of soda .. .. .	1 oz.
Bichromate of potash .. .. .	1 gr.
Tap or rain-water .. .. .	10 oz.
Ammonia, '880 .. .. .	¼ drm.

"Dissolve the nitrate of silver in about an ounce of the water, and the citrate of soda and the bichromate of potash in the remainder, and mix. Add the ammonia and filter.

### WASHING SOLUTION, No. 1.

Kallitype developer .. .. .	½ oz.
Citrate soda .. .. .	2 "
Tap or rain-water .. .. .	20 "

"To be returned to bottle after use, and used over and over again as previously described.

### SOLUTION FOR WASHING BATHS, Nos. 2 and 3.

Citrate of soda .. .. .	1 drm.
Ammonia, '880 .. .. .	2 "
Tap or rain-water .. .. .	1 quart.

"With ordinary care success in Kallitype printing is certain. Should, however, any of our customers be unable to succeed with the process, if they will communicate with us we shall be happy to give them every assistance in our power, and in any case we should be glad to receive specimens of their work (to be returned if desired), so that we may judge if they are getting the best results the process will yield."

ROYAL CORNWALL POLYTECHNIC EXHIBITION.—We are asked to correct a mistake which appeared in the report on the Photographic Department of the Falmouth Exhibition. The report stated that a 1st class silver medal was awarded to "Mr. R. H. Low." It should have been to Mr. R. H. Lord, of Cambridge, whose fine composition picture "Work and Play" (which received the 1st silver medal) was one of the gems of the exhibition.

COURT MOURNING STATIONERY.—Efforts have been made from time to time to relieve the mournful appearance of mourning stationery. Messrs. John Dickenson and Co., Ltd., have sent us samples of what, to us, appears a distinct departure. The left-hand corner of envelopes and paper is relieved with black, and quite sufficiently denotes respect for the dead and sympathy with the living. We commend this mourning stationery to our readers, and hope to see the black-edged stationery entirely deposed.



## Enlarging by Artificial Light.

BY C. J. LEAPER, F.C.S.

### Second Prize—Competitive Paper.

THE principles underlying enlargement-making by artificial light are, broadly speaking, the same as those which governed the taking of the negative from which the enlargement is to be made.

The view facing the camera is in negative-making larger than its image on the ground-glass, and the lens is situated between the two. The view is, in fact, at one of the conjugate (or interchangeable) foci of the lens, and the ground-glass at the other.

Were we to substitute the finished negative for the ground-glass, taking care to *brilliantly* and *evenly* illuminate it, and place a sufficiently large screen at the point focussed for when taking the negative, such a screen would receive upon its surface a negative image of the view itself. And if, instead of the screen, we employed a large sheet of very sensitive paper, *taking care to shield it from all white light except that coming through the lens*, we should obtain upon the paper (usually after development) a positive and enlarged image of the negative, a counterpart, in fact, of the view itself.

The production of enlargements resolves itself into—

- (1) Evenly and brilliantly illuminating the negative;
- (2) Providing a means for shielding the sensitive paper from all stray white light;
- (3) Adopting some plan for keeping the negative and the sensitive paper parallel to each other;
- (4) Using a suitable lens; and, though last, not least,
- (5) Being familiar with the manipulating of the sensitive surface itself as regards development, etc.

We will take these items in proper order, not restricting ourselves to any one particular method of enlarging, but explaining several, leaving it to each individual's choice to adopt that which best suits his facilities and purse.

(1) To understand what is meant by evenly illuminating a negative, a dip into elementary optics will be useful. Let

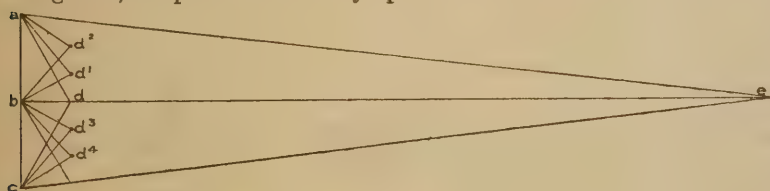


FIG. 1.

$a$ ,  $b$ ,  $c$ , in fig. 1, represent a negative, and  $d$  a source of light proceeding from a point. Then the lines  $da$ ,  $db$  will represent the relative intensities of the light at the centre and the margins, and, as the diagram at once shows, even illumination and consequently even exposure is impossible.

But a moment's thought will convince that by removing the point of light to  $e$ , the line  $ea$  will then become sensibly equal to  $eb$ , which amounts to saying that with a sufficiently powerful source of light at a considerable distance, even illumination would be secured.

With the electric arc the matter is feasible enough, but as this is out of the reach of most amateurs we may at once dismiss its further consideration. If, however, for a luminous point or surface of small area we substitute a *luminous surface practically as large as the negative itself*, we obtain exactly what we require. Let  $d$ ,  $d^1$ ,  $d^2$ ,  $d^3$ ,  $d^4$  represent points on such a surface. Then it is clear that the original lack of marginal illumination at  $a$ , due to the distance of that point from  $d$ , will now be compensated for

by its greater proximity to  $d^2$ . This gives one plan (A) of obtaining even illumination. And if for a luminous and *stationary* point we substitute a *moving spot of light*, we evidently obtain an equivalent result. This latter plan we will call (B).

(A) A luminous surface is not difficult to realise in practice by placing four gas flames as shown in fig. 2. The pair necessarily nearest the negative should be turned down somewhat to compensate for their lesser distance, and if we interpose between the gas flames and the negative to be illuminated a sheet of finely ground flashed (not pot) opal, we obtain in a simple manner almost as effective an arrangement as could be wished for. Each gas jet should be provided with the now well-known albo-carbon apparatus, for the sake of the increased brilliancy it confers upon the flame, and the consequently shortened exposure.

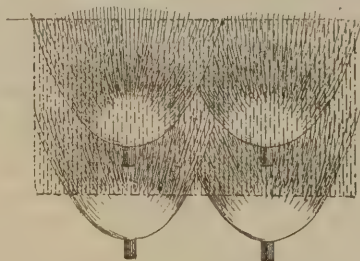


FIG. 2.

(B) A moving luminous point is still easier to realise, and although yielding results distinctly inferior to the first plan (A), it commends itself to all on the score of simplicity and economy of time. Such a moving luminous point is got by waving burning magnesium behind the negative, backed up as before with the sheet of opal. The magnesium is best used in the form of wire and burnt in short lengths.

(C) There is one more plan of getting the necessary even illumination. This consists in interposing a pair of large lenses, usually called condensers, between the source of light and the negative. Rays of light which before the introduction of the lenses were very divergent (fig. 3), are now rendered slightly convergent (fig. 4), and so the required result is obtained.



FIG. 3.

Such condensers being rather expensive, we will here describe how a pair good enough for ordinary purposes may be cheaply made.

Select a pair of clock glasses fitting each other as accurately as possible, and about 10 ins. in diameter, and procure two pieces of stout glass of good quality (plate glass is best) 12 ins. square. Holding the convex side of a clock glass in the pneumatic holder, gently grind the edges with emery powder and water on a piece of slate, until perfectly even and flat. Get a tinsmith to make a *tube* of tin  $\frac{1}{4}$  inch less in diameter than the clock glasses, and of such a length that when placed between them, their convex sides being towards

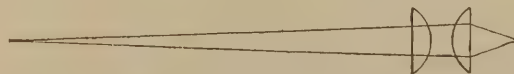


FIG. 4.

each other, it keeps their centres half an inch apart (fig. 5). Plane up two pieces of stout deal 11 ins. square, and cut a circle  $9\frac{1}{2}$  ins. diameter in each. Procure from a dealer in lawn-tennis goods four of the long thumb-screws used with racket presses. Each corner of the wooden squares is pierced to receive a thumb-screw, and each clock glass has a small triangular aperture made in



its edge with a three-square file moistened with turpentine.

The clock glasses must then be cemented to the flat glasses. The best cement to use is bichromated gelatine made as follows: Soak half a drachm of Nelson's No. 1 gelatine in water for several hours, pour off the liquid, melt the gelatine by heat, and add to it, by candle-light, 10 grs. of potassium bichromate. Having warmed the edges of the clock glass and the flat glass plate, use the cement to cause one to adhere to the other, taking care to employ as thin a coat of it as possible, and expose the whole to sunlight to render the gelatine insoluble. The other clock glass is then similarly cemented to the other plate. To put the condenser together, one of the pieces of deal is placed flat on the table, the plate of glass with its adhering clock glass put over it, then the tin tube followed by the other clock glass backed up with the other piece of deal, the thumbscrews being employed to keep all together (see fig. 5).

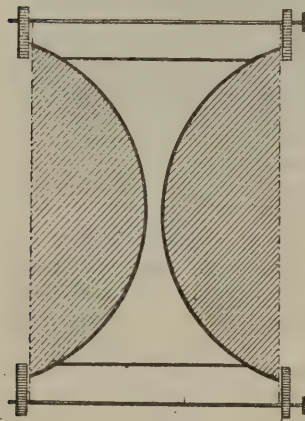


FIG. 5.

Care should be taken that the triangular apertures in each of the clock glasses are turned in the same direction, and that they face the centre of one of the sides of the deal boards. To complete the condenser it is only necessary to fill each clock glass with pure glycerine, or even with water.

(2, 3.) The readiest way of guarding against stray light consists in placing the arrangement for illuminating the negative outside the dark-room.

To effect this, let two small windows, say 9 ins. square, be made in the door of the latter, and at a convenient height, about 4 ft., from the floor (see fig. 6).

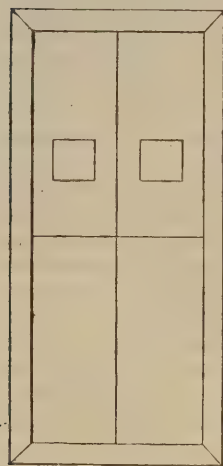


FIG. 6.

If gas flames are to be used, these should be arranged on swivel brackets outside the door, and within easy reach of the arm passed through one of the windows. If either of the other plans is adopted, one of the windows must be provided on the outside with a small shelf to support the lamp, etc. This window carries the negative, and should have a frame or frames made to suit the negatives from which enlargements are to be made. The other window must have a sliding panel on the inside, so that it can be closed when necessary. Inside the dark-room, and under the window carrying the negative, is a shelf for holding the camera and enlarging easel. Assuming

that enlargements are to be made from half-plate to a maximum of 15 by 12, and that the lens is 9 ins. focus, this shelf need not be more than 48 ins. long. It should be about 9 ins. below the centre of the window. For convenience, it may be hinged to the door at the top, so as to lie flat when not in use, a simple prop keeping it in position when enlargements are being made (see fig. 7).

On this shelf the enlarging easel runs on two guides, so as to insure that it is always parallel to the negative. The easel is merely a piece of well-seasoned deal 18 by 18½ ins.,

having a central hole made in it, in which a focussing magnifier is permanently fixed, so that its surface is flush with the front of the board. Rectangles 10/8, 12/10, and 15/12 should be marked on the easel, and pieces of stout white paper cut to these sizes kept in readiness in the dark-room.

The negative is secured in position in the window, and the camera ordinarily employed is used to project its image on the screen. A small deal box supports the camera, and two wire hasps serve to keep it close to the negative. The focussing cloth thrown over the junction of the camera and window will effectively exclude stray light. Of course, the camera must have the ground-glass thrown back or altogether removed, and be provided with the lens in its usual position.

In addition to the even illumination of the negative it must be lit brilliantly. The four gas flames or the burning magnesium provide an efficient means of doing this, but if condensers are used some special illuminant becomes necessary. The *lime-light* stands *facile princeps* for this class of work, and now that compressed oxygen is commercially pro-

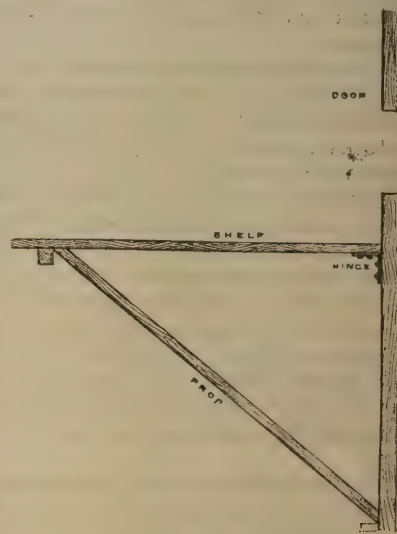


FIG. 7.

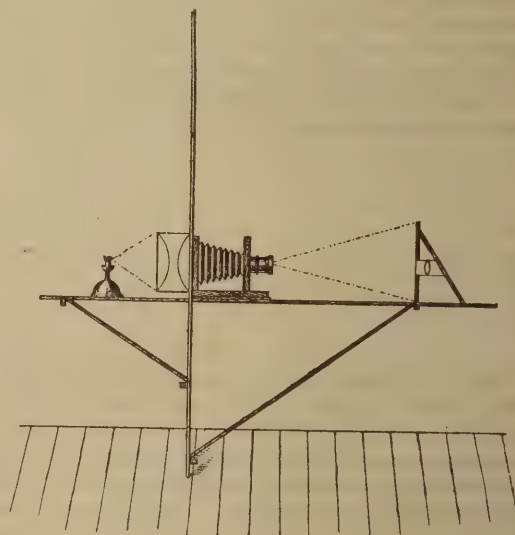


FIG. 8.

curable almost everywhere deserves to be more generally employed.

A "blow-through" jet is quite good enough for the purpose and easier to manage than a "safety." Failing the lime-light, a four-wick "Pamphengos" oil lamp answers well, and after it we may rank the many three and two wick lamps now in the market. With every oil lamp a stop about an inch in diameter must be used close to the light, to cut off marginal rays, and to make the large volume of light approximate to the condition of a point. With the



lime-light no stop is necessary, the light being already a point.

Such a stop materially augments the exposure, but is an absolute necessity if good definition is looked for. When using a condenser we must begin by *centering* the light. This is done by placing the enlarging easel in front of the camera in its usual position for making enlargements, and then removing the condenser backwards and forwards until the aperture in the door is seen *sharply defined* on the screen.

(4) The longer the focus of the lens used for enlarging, the better will be the result. With a lens of short focus it is impossible to obtain even illumination, the lens being *too near* the negative (compare fig. 1). It may be taken as axiomatic that to produce good enlargements we must use a lens having a focal length of at least the longest diameter of the negative it is used to enlarge from.

(5) Writing presumably for beginners, I will describe how to manipulate one description of sensitive surface only, viz., the now well-known Eastman bromide paper.

We shall require to begin with the following solutions:—

- (A) Potass. oxalate, 12 ozs.; water, 60 ozs.; oxalic acid, 20 grs.
- (B) Ferrous sulphate, 1 oz.; water, 5 ozs.; sulphuric acid, 2 drops.
- (C) Potass. bromide, 120 grs.; water, 1 oz.
- (D) Hypo, a *saturated* aqueous solution.
- (E) Tartaric acid, saturated aqueous solution diluted with an equal volume of water.

The negative being in position, with the gas jets or lamp outside the window, the piece of white paper, same size as enlargement to be made, is fixed with four toilet pins to the easel, and the negative focussed on it by racking the lens in and out, and moving the easel backwards and forwards until the desired result is obtained, the paper being placed over the lines corresponding to its size already marked on the easel.

When the focus seems satisfactory, the paper is removed, and the eye applied to the magnifier. If the focus is correct, the *grain* of the negative will be seen. If it is not, the easel must be moved *very slightly* backwards and forwards until this is the case.

The stop it is intended to use should be during this time in the lens.

The lens is then capped, and the sensitive paper pinned in position (using *toilet* pins) at the extreme corners only, and the lens then uncovered, and the requisite exposure given.

Exposure over, the paper is placed in a dish of water to soak whilst the developer is being mixed. This consists of  $4\frac{1}{2}$  ozs. (A),  $\frac{1}{2}$  oz. (B), and 5 ozs. water. The water being drained off the paper, the developer is applied. With correct exposure the image will make its appearance in about 45 seconds. If it appears in a shorter time, at once return the developer to the measure, and add to it from two to twenty drops of (C), according to the estimated amount of over-exposure, returning the restrained developer to the dish. *But the best results are always obtained with correct exposure and a developer containing no bromide.*

When the picture looks almost, but not quite, as dark as we should finally like it to be, the developer is poured off, and the paper washed for five minutes, then put into the hypo, in which it is to remain at least half an hour.

When fixed, the enlargement is washed in running water for two hours, and then soaked for half an hour in (E), which will remove the slight stain given to the paper by the iron solution. A final washing of half an hour's duration will complete it.

As regards duration of exposure, four albo-carbon flames will enlarge from half-plate to 15 by 12 in about twenty-five minutes, using a lens working at  $f/15$ , and six feet of magnesium wire will give an equivalent exposure.

So much depends upon the kind of lamp used when a condenser is adopted, that no definite hints can be given. The exposure may in such a case vary between three seconds with a good blow-through jet to two hours or more with an oil lamp, and can only be learnt by experience. With gas flames, magnesium or blow-through jet and condenser, the ordinary rules regulating the influence of stops upon duration of exposure apply. With an oil lamp and a condenser the case is different. Here the cone of light entering the lens has for its apex a disc of some diameter. If the stop used in the lens is smaller than this disc, reducing the diameter of the stop will, up to a certain point, increase the exposure, and using a larger stop will decrease it. But the reduction in exposure obtained by using larger and larger stops cannot be carried beyond a certain point, for it will cease when the diameter of the stop is of the same size as the apex of the cone of light.

If, for instance, the diameter of the apex of the cone is  $\frac{1}{4}$  in., then it is quite immaterial, so far, at least, as duration of exposure is concerned, whether a  $\frac{1}{4}$  in.,  $\frac{1}{2}$  in., or 1 in. stop is employed.

## Science Notes.

PROBABLY the "worst moon on record" appears in the reproduction of Daubigny's picture, "Return of the Flock-Moonlight," in our copy of this month's *Art Journal*. It is an irregularly-shaped blotch of white, round which some one seems to have drawn a crooked line with a pen.

Talking of moons, it is common enough to introduce a representation of our satellite into the so-called "moonlight" pictures by sticking a red wafer in the desired spot on the negative, but this wafer is almost invariably too large. The size of a three-penny piece is a rather favourite image for the moon, but this is much beyond its relative proportions.

In last week's *Graphic* (September 6th) there is an admirably illustrated article on "The Ride of Hereward the Wake," from Ely, round Cambridge, and back to Ely again, by Mr. Staniland. Now, this is the sort of work photographers should set themselves to do. It must indeed be a strange part of our country which has no special story connected with it; well, set yourselves to illustrate that story.

For an example, take the famous journey of Little Nell and her grandfather, as detailed in the "Old Curiosity Shop." I have, as I believe, traced the latter part of this journey from Warwick (where Mrs. Jarley held her wonderful waxwork show) to Birmingham, and thence across the Black Country to Dudley, and so on to Tong, where Little Nell died. At present I am rather puzzled by the part of their journey between London and Warwick, and should be obliged if anyone who knows that part of England better than I do would offer some suggestions as to the line of route.

But I would have every amateur take up at least one line of research, and work it out. Do the churches of your country, or its famous trees, or its boulders, or what not. Then print a good series of your pictures in platinotype, add your written notes, bind the whole in a book, and deposit it in your local reference library; and make a set of lantern-slides from your negatives, and let your fellow townsmen see what you have been doing. So shall photography and photographer be honoured in the land. But have a purpose, a definite aim, and work it out.

The "Friday Evening Lecture," delivered by Mr. Poulton before the British Association at Leeds, on "Mimicry," was illustrated by a beautifully coloured set of photographs (lantern-slides), in which the extraordinary manner certain species of birds, beasts, and insects assume peculiar shapes and colours, was made clearly evident to a very large audience.

The sufferings of an officer in a regiment stationed at Cork have been recently investigated by a court-martial, with the result that his fellow officers (by whom he had been taken out of



bed and tarred) have been either expelled the service or removed to other regiments. It is not generally known, however, that the officer who was tarred was *photographed* while in that condition by a brother officer. This statement appears in the *Times* for September 6th.

Will any amateur who visits the district take pains to secure a set of good negatives of the splendid cromlech of Longhouse, in the parish of Llanrian, between Fishguard and St. David's? From a letter written by Mr. Chester to the *Times*, it appears that the proprietor on which the cromlech stands is desirous of demolishing it. Workers at Tenby should look after this.

For orthochromatic work M. Leon Vidal recommends screens made by dissolving pyroxyline in amyl acetate, coloured by the addition of a little erythrosine or aurantia. The mixture is poured upon glass plates, and dries in about two days; it is removed by soaking the glass plate in water, and the coloured film is then dried between blotting-paper, after which it is ready for use. It is best to cut it into small squares, which can be gummed over the diaphragm apertures.

The American journals claim that the new quarters of the Society of Amateur Photographers of New York, in West Thirty-eighth Street, are "the largest and most complete of any in the world." If it be so, it is pretty certain that the superiority will not be long maintained, as the club-house of the Camera Club, now approaching completion, in Charing Cross Road, will be immensely superior in every particular. The New York rooms occupy one floor only, and have an area of about 6,500 square feet.

In face of the recent rapid advances in the price of silver and of other articles necessary for the making of dry plates, it is difficult to see how the dry-plate makers can manufacture plates on the basis of "one shilling per dozen for quarter-plates," with any profit. To save themselves from loss, they are almost necessarily compelled to "starve the plates" in silver. Such plates answer well enough for ordinary studio work, where the exposure can be gauged to a nicety, and where thin negatives are preferred as yielding facilities for retouching. But for use in the field by amateurs, a plate rich in silver is an absolute necessity. Our advice is, "Don't try to save in your plates." If by giving from a halfpenny to twopence a piece more (according to the size of your plates) you can secure a picture instead of a thin, miserable failure, surely it is true economy.

Can anyone devise a plan of making microscopic pin holes in tinfoil, say, the five-hundredth of an inch in diameter? Such holes are used as artificial stars (a light being placed behind the foil) by astronomers, but at present they cannot be obtained small enough or true enough to bear the necessary magnification.

The American worker in colour-photography, F. E. Ives, has just patented a process for the production of photography in colours, by which three negatives of the object to be reproduced are taken simultaneously, a special colour screen being used for each. The principal point in this appears to be the fact that the negatives are taken *simultaneously* instead of in succession; but we believe that Mr. Ives also claims to have improved the colour-screens which are used.

F. G. S.

**BROMIDE AND SILVER PRINTING.**—Messrs. David T. Field and Co., Holy Cross, Clent, near Stourbridge, have sent us specimens of their photographic printing. In every case the work is well and carefully executed. The prices appear to be reasonable.

**ALUMINIUM FOR LENS MOUNTS.**—Much has been said and written with regard to the use of aluminium, owing to the fact that it is the lightest of known metals. Messrs. Sharp and Hitchmough, of 101 and 103, Dale Street, Liverpool, have sent us for inspection an 8 by 5 Apts lens, mounted in aluminium, which just turns the scale at 4 oz., whereas a similar lens in brass mounts weighs 11½ oz. The lens is admirably finished, and we understand that the list prices are, for 5 by 4, 65s., 7 by 5, 90s., 8 by 5, 100s., 1, 130s., 10 by 8, 160s., 12 by 10, 180s. The saving of weight is, in our opinion, well worth the additional expense. The "Apts" lenses are well known to give good definition, and the firm have already established a reputation for their excellence. Messrs. Sharp and Hitchmough also send us a very simple flash lamp. The lamp is of the sponge order, which is saturated with methylated spirit; in the middle a small well hole is made, into which magnesium is dropped; connected to this is a flexible tube with porcelain mouthpiece. At the moment of exposure the powder is blown into the flame, and a brilliant illumination is given. The price is 1s. 6d.

## Holiday Resorts and Photographic Haunts.

### RAMBLES ROUND ARUNDEL.

BY FREDK. G. READER.

ALTHOUGH Arundel in itself does not possess many attractions beyond the Castle, yet to the fagged clerk or wearied assistant snatching a few days' leave from desk or counter for a photographic "jaunt" in the heart of the country, what more desirable centre could be found?

The character of the scenery around is very varied—spreading landscapes, leafy woods, rippling streams, flower-strewn meadows, the ever-beautiful Arun, and the sea, about four miles distant.

It was in September of last year that we made this trip, and a most enjoyable one it proved to be. The weather was kindly disposed, we were favoured with fine weather throughout, although for the first few days it was rather hazy; this, however, proved an advantage, as it gave us time to prospect and choose our pictures.

Upon our arrival we put up at a comfortable little hostelry near the bridge, and being in the centre of the town was very convenient. As I said before, the town has few attractions of its own, but the Castle, Church, and Cathedral deserve all the attention which can be bestowed upon them.

The inhabited portion of the Castle is not shown to strangers, but the keep is open to the public on Mondays and Fridays, by tickets obtainable gratis at the "Norfolk Arms."

I did not photograph within the Castle precincts, but I believe a permit would be granted. The keep is the oldest remaining fragment of the Saxon fort, of the original entrance to which no traces are to be seen. At the top of the first flight of steps we walk upon the old Norman wall, then mounting to the little tower to the left a fine view is obtained of the Castle and its vicinity. The passage through which we now pass has a room opening from it, which is said to be that in which the Empress Maud slept when a guest at the Castle, 1134. The bedposts are here preserved, also a stone mill, where King Alfred's cakes are supposed to have been made. There are also a quantity of cannon balls of the time of Cromwell, taken out of the well adjoining. Formerly a strong netting of wire covered the keep, which was converted into an aviary for some North American eagle-owls; these birds are now stuffed and placed in a case hard by. A spiral stair conducts us to the ramparts and to the window of what was once the oratory of the garrison. Provided it is a clear day, a very extensive panorama can be viewed by walking around the parapet.

From one point the silvery Arun can be seen, threading its way beside the reedy banks; from another we look down upon what was formerly a moat, and beyond upon a thoroughly English landscape,—pleasant fields and cattle grazing peacefully beneath spreading trees.

Adjoining the Castle is the large and very interesting parish church of Saint Nicholas, built about the year 1380.

The large Roman Catholic chapel close to the church is a magnificent Gothic structure, probably one of the finest modern buildings of the sort in England.

Near the bridge are the ruins of the Hospice of the Holy Trinity, a "domus Dei," founded about 1380, by the Earl of Arundel.

A fine view of the Castle is obtained from the river, opposite the woodyard, and makes a capital picture when there happens to be a vessel drawn alongside. The dairy is an octangular building surmounted by a cupola and lantern, and surrounded by a richly carved colonnade of wood in the Tudor style. This makes an admirable picture from down the stream and backed by a mass of foliage.

Passing now to the Park, a wealth of beauty awaits us,—a very paradise for the artist or photographer. A profound and solemn peace seems to rest upon this enchanted spot—a quiet nook on earth given over to a delightful, slumbrous tranquility, that knows nothing of the hurry and rush of this steam-driven age, a spot in which to roam and dream. The Park is always open, except on one day in each year, and we may sketch or photograph without let or hindrance. Throughout the Park, stored with herds of deer, are beautiful prospects. The bold rise of the downs, the undulating country, the Valley of Pugh Dean,



winding among the hills which end in the marshes by the sea, the hanging beechwoods fringing Swanbourne Lake and Arun lingering on its way, will charm the summer wanderer. But now, in autumn, all is harmonious confusion; tints of orange, scarlet, crimson, brown, in the sunset of the year clothe the deep wood with a silent splendour. While we gazed upon these lovely scenes, we could not but feel sad and disappointed at the limited scope of photography, to think how different our pictures would be to the scenes around us.

Reclining upon a mound overlooking the lake, smoking the "pipe of peace," we hear below the cushat cooing mournfully, the cawing rooks, clamorous daws, and the little dab-chicks. All these varied sounds, with the tinkling of the distant sheep-bell, make a harmony which lulls us into peaceful repose. But I am reminded that I have other ground to cover, so must hasten on.

The "Black Rabbit" is a favourite resort, and many a time did we saunter in this direction, interview the landlord—ever ready to please—and satisfy the inner man with the good old English fare, viz., bread and cheese, washed down by a plentiful supply of good wholesome ale.

After passing the "Black Rabbit" a short walk along beautiful lanes brings us to the pleasant little villages of Offham and South Stoke. Still further and we arrive at the charming little village of Burpham, on the banks of the Arun. Of all the villages we visited during our stay in Sussex none impressed us so much as this tiny hamlet, with its primitive picturesqueness and old-time look—thatched cottages embosomed in trees and covered with the greenest of ivy, flowers of every hue abound. The church, too, with its little square tower, also covered with ivy, the blacksmith's forge, and village pump all unite to charm the lover of nature.

Near the church we found a homely little hostel; here we obtained a modest meal and welcome rest. Such a village, when viewed aright, can never fail to give a wealth of pictures to the photographer, and such pictures usually, when finished, find more numerous admirers than do pure landscapes, which depend upon the subtler beauties of nature.

Amberley is another picturesque village, four miles north of Arundel. Here are to be seen the ruins of an ancient castle, built in 1368, by William Rede, the then Bishop of Chichester. Close to the castle stands the church; the chancel is Norman, but the rest is Early English. The chancel arch is very beautiful. Some remains of Polychrome are to be seen on the walls, and the hour-glass still stands by the side of the pulpit. Amberley castle, church, and village, with the downs behind and the river Arun in front, make a very picturesque landscape, especially as viewed from the Arundel Road. On the opposite side of the river, near Amberley, are the villages of Houghton and Bury, well worth a visit.

Ford is an insignificant place with a church to match, ancient and small, so small that it is said to have been lost for a long time, but discovered again by a farmer when clearing away a nettle bed.

The next station to Ford is Littlehampton, and perhaps the less said about this place photographically the better. With the exception of the harbour, there is practically nothing worth lingering for; the town is dull, melancholy, and very uninteresting.

About two miles from Littlehampton Ferry is the very interesting church of Clymping, the chief feature being its ancient tower, exhibiting the Saxon or first Norman zig-zag mouldings both in the door and window cases carved in Caen stone, and a beautiful specimen of a Norman doorway.

We now pass on to Chichester. Except as being a cathedral town, and one where a large market is held every Wednesday, it has few claims to be considered a very important place, nevertheless it has several features of interest in addition to the cathedral. The first thing that strikes the eye on whichever side the town is entered is the Market Cross. This was built by Bishop Storey about 1500. The old city walls remain tolerably perfect throughout their circuit, but the date of their original foundation, whether Roman or not, does not appear. St. Mary's Hospital, at the east end of Lion Street, is a building which ought on no account to be neglected by the photographer. It consists of a large hall or refectory, with a fine open timber roof; at the east end and separated only by a wooden screen, is the chapel. On each side of the hall and only accessible therefrom, are the apartments of the inmates. We were invited to enter one of these, and

very cosy and comfortable they appeared. The origin of the establishment is somewhat lost in obscurity, but it seems to have been first founded in 1158 as a nunnery, and reconstituted as an almshouse about a century afterwards.

I fear I have trespassed beyond the prescribed limits, but before closing I should like to give a short account of one of the most interesting rambles we took.

Arrived at Worthing, which, by the way, is a delightful seaside resort, we made our way to Broadwater, one mile north. The church is cruciform, with a transitional Norman and low square tower. The east window is a four-light decorated. The roof of the church is groined, and the tower arches are Norman. There are many brasses and monuments, amongst them being two grand monuments, in Caen stone, of the Lords De la Warr.

After leaving Broadwater we made our way across the Downs to Cissbury Camp. This walk is very varied and interesting to the archæologist. The camp is oval, enclosing sixty acres, with a single trench and high rampart; on the west side are traces of a British village, which was composed of round huts, sunk in hollows for warmth; these circular pits remain. Flint weapons have been discovered at this place in large numbers; they all belong to the Neolithic period, when hammer stones were used to chip carefully the flints.

Standing on the summit of this hill, which rises to a considerable height, beautiful views are obtained in all directions. The coast line is seen from Beachy Head to Selsea Bill, with a veil of soft blue drawn across the happy sunlit face of the sea. It is truly a noble prospect, and one worth the journey to see. Northward the Weald, now in the full glory of autumnal tints, forms an impressive scene—the oak, the hazel, and the ash, which afford sweet cooling shades in summer, are now mingled and fade away into that shadowy, colourless distance which sheds a lovely mystery over all forest depths.

"Here the bleak mountain; speckled thin with sheep,  
Grey clouds, that shadowing, spot the sunny fields,  
And river, now with bushy banks o'er-arched,  
Now winding bright and full with naked banks;  
And seats and lawns, the castle, and the wood,  
And cots and hamlets, and faint city spire;  
The channel there, the islands, and white sails,  
Dim coasts, and cloudblike hills and shoreless ocean—  
It seemed like Omnipresence.  
No wish profanes the overwhelmed heart:  
Blest hour! it is a luxury to be!"

THE Photographic Artists' Co-operative Supply Association, Ltd., have caused to be inserted the following advertisement in the *Standard*—

**DETECTIVE CAMERA (SWINDEN and EARP'S PATENT).**—The young man who took one of these cameras from the first floor of the Photographic Artists' Co-operative Supply Association, 91, Gracechurch Street, on Wednesday afternoon, stating that it was his, is requested to return the same, or the matter will be treated seriously.

They say the circumstances were briefly as follows: A gentleman calls and makes sundry enquiries. Whilst present the attendant has occasion to go into an adjoining dark-room, and calls an assistant to take his place. The customer, availing himself of the change, takes up a hand-camera which he says belongs to him, and leaves the premises before suspicion is aroused.

**MOUNTING BOARD.**—A lady correspondent has sent us a very ingeniously constructed mounting-board, which is especially useful for mounting gelatino-chloride prints. She says, "I send you a mounting-board called the 'Stanhope.' Having spoiled many prints on aristotype and bromide paper when mounting them by the mountant getting on the picture side, I thought of this plan, and since adopting it have not lost one print. The tissue paper which is placed under the print must be renewed very often for fear of any paste getting on it, and must be larger than the print, to save the board from getting any mountant on it. When the print is all brushed over with the mountant, the bits of steel fixed on the board must be turned aside, one to the right and one to the left, and the prints gently drawn down and put on the mount." The arrangement is very simple. Four pieces of watch spring are fastened at the four corners of a ruled space about half an inch larger on all four sides than the print to be mounted. The springs are free, and project slightly over the print in order to hold it in position and allow the print to be covered all over with the mountant without soiling the fingers or handling the print.



## Register of Dark-Rooms, 1890.

### "AMATEUR PHOTOGRAPHER" LIST OF DARK-ROOMS.

WE class them in four divisions, *i.e.*, *a* amateur, *d* dealer or professional, *h* hotel, and *s* photographic society.

In our letter of introduction full particulars are given as to owner, address, charges (if any); plates, chemicals, etc., kept by dealers; terms for temporary membership of societies; hotels; distance from station, etc., etc.

Every application for letter of introduction must be accompanied by SIX PENNY STAMPS. The owner of "Dark-Room" will be advised by same post as the applicant. The envelopes should bear the endorsement DARK-ROOMS.

NOTE.—Upon application information can be supplied respecting dark-rooms on the Continent, and addresses of many firms who stock photographic material.

<i>d</i> Aberdeen	<i>a</i> Coniston	<i>d</i> Jarrow	<i>d</i> Reading
<i>d</i> Aberystwith	<i>d, s</i> Crewe	<i>d</i> Jersey	<i>h</i> Redcar
<i>d</i> Addingham, Yorks.	<i>d</i> Crewkerne	<i>d, s</i> Keighley	<i>h</i> Redditch
<i>d</i> Amble, Northumberland	<i>d</i> Croydon	<i>a</i> Kendal	<i>d</i> Rhayader
<i>d</i> Andover, Hants	<i>a</i> Dalton-in-Furness	<i>a</i> Kimberley	<i>d</i> Richmond, Surrey
<i>a</i> Aylesbury, Bucks	<i>d</i> Darlington	<i>d</i> King's Lynn	<i>a</i> Ringwood, Hants
	<i>h</i> Dartmouth	<i>a</i> Kingstown, Dublin	<i>d</i> Rochdale
<i>d</i> Banff, N.B.	<i>d</i> Deal		<i>a</i> Rodley, near Leeds
<i>d</i> Barmouth, N. Wales	<i>d</i> Derby	<i>d, h</i> Lancaster	<i>d</i> Romford
<i>a</i> Barnsley	<i>a</i> Devizes	<i>d</i> Larne	<i>d</i> Royston
<i>d</i> Barnstaple	<i>h</i> Dingwall, N.B.	<i>d</i> Leamington	<i>d</i> Ryde, Isle of Wight
<i>d, s</i> Bath	<i>a</i> Doncaster	<i>d</i> Lechlade	<i>h</i> Ryde
<i>h</i> Beaconsfield	<i>a, d, h</i> Douglas, Isle of Man	<i>h</i> Ledbury	<i>a</i> St. Agnes
<i>a</i> Bedford	<i>d</i> Dover	<i>a, d</i> Leeds	<i>d</i> St. Andrew's, N.B.
<i>d, s</i> Belfast	<i>d, h</i> Dublin	<i>a, d</i> Leicester	<i>h</i> St. Asaph
<i>s</i> Belfast	<i>h</i> Dunblane, N.B.	<i>a</i> Lenzie, N.B.	<i>d</i> St. Bees
<i>d</i> Belper	<i>d, s</i> Dundee	<i>d</i> Leytonstone, Essex	<i>a</i> St. Helens
<i>d</i> Bexhill-on-Sea	<i>a</i> Dungarvan, co. Waterford	<i>d</i> Lincoln	<i>a</i> St. Heliers
<i>d</i> Birchington-on-Sea	<i>a</i> Duns	<i>d, s</i> Liverpool	<i>a</i> St. Ives, Hunts
<i>a, d, s</i> Birmingham	<i>d</i> Durham	<i>h</i> Lizard, Mullion	<i>d</i> St. Leonards
<i>d</i> Blackburn, Lancs.		<i>d</i> Llandudno	<i>h</i> St. Mellons
<i>h</i> Bodiam	<i>d</i> East Molesey, Surrey	<i>d</i> Llandiloos	<i>h</i> St. Neots
<i>d</i> Bodmin	<i>h</i> Ebbw Vale	<i>d</i> London, Aldersgate, E.C.	<i>d</i> Sandgate
<i>d</i> Bolton	<i>d</i> Edinburgh	<i>a</i> Bloomsbury, W.C.	<i>d</i> Sandown, Isle of Wight
<i>h</i> Bonar Bridge	<i>s</i> Egremont	<i>d</i> Borough, S.E.	<i>a, d</i> Scarborough
<i>h</i> Boro' Bridge, Yorks.	<i>h</i> Ennistymon, co. Clare	<i>d</i> Charterhouse Sq., E.C.	<i>h</i> Seddlescomb, near Battle
<i>d</i> Bournemouth	<i>a</i> Enfield Town	<i>a</i> Chelsea, S.W.	<i>a</i> Shaftesbury
<i>d</i> Bradford	<i>a, d</i> Evesham	<i>d</i> Fenchurch Street, E.C.	<i>d</i> Shanklin, Isle of Wight
<i>d</i> Bramley, near Leeds	<i>d</i> Exeter	<i>d</i> Fleet Street, E.C.	<i>d, s</i> Sheffield
<i>d, h</i> Brechin, N.B.		<i>d</i> Gracechurch Street, E.C.	<i>h</i> Shepton Mallet
<i>h</i> Bridge, near Canterbury	<i>s</i> Falkirk	<i>d</i> Highgate, N.	<i>d</i> Shrewsbury
<i>d</i> Bridlington Quay	<i>d</i> Falmouth	<i>d</i> Kingsland, N.E.	<i>h</i> Sleaford
<i>h</i> Brigg, Yorks.	<i>d</i> Faversham	<i>d</i> London Bridge, S.E.	<i>d, h</i> Southampton
<i>d</i> Brighton, Hove	<i>d</i> Felixstowe	<i>d</i> New Cross, S.E.	<i>h</i> Southend-on-Sea
<i>d</i> Brighton	<i>d</i> Finchley	<i>d</i> Peckham, S.E.	<i>a</i> Southport
<i>d</i> Bristol	<i>h</i> Fochabers, N.B.	<i>d</i> Walworth Road, S.E.	<i>a, s</i> Southsea
<i>h</i> Broadway, Worcester	<i>d</i> Folkestone	<i>a</i> Long Eaton	<i>a</i> Stamford
<i>d</i> Bromley, Kent	<i>a</i> Four Ashes, near Stourbridge	<i>h</i> Long Melford	<i>a</i> Steyning
<i>h</i> Brough, Westmoreland	<i>a</i> Frodsham	<i>d</i> Loughborough	<i>d</i> Stockton-on-Tees
<i>s</i> Burnley		<i>a</i> Louth	<i>a</i> Stoke-on-Trent
<i>d</i> Burslem	<i>a</i> Galashiels, N.B.	<i>a</i> Ludlow	<i>a</i> Stony Stratford
	<i>h</i> Giant's Causeway, Ireland	<i>d, h</i> Lynmouth	<i>a, d</i> Stourbridge
<i>a</i> Cadiz, Spain	<i>d, s</i> Glasgow	<i>d</i> Lynn	<i>d, h</i> Stratford-on-Avon
<i>h</i> Callander, N.B.	<i>a</i> Glenalmond, N.B. (nr. Perth)	<i>a</i> Lythe, Whitby	<i>d</i> Stroud
<i>h</i> Camborne	<i>h</i> Glenarm, Belfast	<i>h</i> Macroom, N.B., co. Cork	<i>h</i> Sudbury, Suffclks
<i>d, h</i> Cambridge	<i>d</i> Gloucester	<i>a</i> Madeley, Salop	<i>d</i> Sunderland
<i>d</i> Carnarvon	<i>d</i> Gorleston	<i>d</i> Maidenhead	<i>h</i> Sutton Bridge
<i>h</i> Capel-Curig, N. Wales	<i>a</i> Goring	<i>a</i> Mainz, Germany	<i>h</i> Sutton
<i>a</i> Chalfont St. Peter, Mid.	<i>a</i> Gravesend	<i>d</i> Manchester	<i>d</i> Swindon
<i>d</i> Cheltenham	<i>d</i> Great Yarmouth	<i>d</i> Mallow, co. Cork	<i>d</i> Taunton
<i>d</i> Chepstow		<i>a</i> Malta	<i>a</i> Tavistock
<i>d</i> Chesham	<i>a</i> Halifax	<i>d</i> Malvern	<i>a</i> Thornton Dale nr. Pickering
<i>d</i> Chester	<i>d</i> Handsworth	<i>d</i> Mansfield	<i>h</i> Thorpe
<i>a</i> Chesterfield	<i>d</i> Hanley	<i>d</i> Margate	<i>h</i> Tintern Abbey
<i>a</i> Chipping Sodbury	<i>d</i> Harrogate	<i>h</i> Merthyr Tydfil	<i>d</i> Todmorden
<i>a</i> Cinderford	<i>d, h</i> Hastings	<i>d</i> Merton	<i>d</i> Torquay
<i>d, h</i> Cirencester	<i>s</i> Havant	<i>d</i> Middlesborough	<i>h</i> Tring
<i>d</i> Clacton-on-Sea	<i>d</i> Hereford	<i>d</i> Minehead	<i>d</i> Tunbridge Wells
<i>s</i> Cleckheaton	<i>d</i> Hexham	<i>h</i> Monmouth	<i>a</i> Tynemouth
<i>d</i> Clevedon	<i>h</i> Holbeach	<i>d</i> Montrose, N.B.	
<i>d</i> Clifton	<i>d</i> Huddersfield	<i>a</i> Mountsorrel	<i>s</i> Utttoxeter
<i>a</i> Clitheroe	<i>a, d</i> Hull	<i>a</i> Mumbles, near Swansea	<i>a</i> Ventnor
<i>d</i> Colchester			<i>a</i> Vienna
<i>h</i> Colnbrook	<i>d, h</i> Ilfracombe	<i>d</i> Newark, Notts	<i>h</i> Wadebridge
<i>d</i> Colwyn Bay	<i>d, s</i> Ipswich	<i>d</i> Newcastle-on-Tyne	<i>d</i> Wakefield
		<i>d</i> Newport (Mon.)	<i>h</i> Warwick
		<i>a</i> Newport, Pembroke	<i>a, d</i> Waterford
		<i>a</i> Niton, Isle of Wight	<i>a</i> Wellington, Salop
		<i>d</i> Norwich	<i>d, s</i> West Hartlepool
		<i>d</i> Nottingham	<i>d</i> Weston-super-Mare
		<i>a</i> Northallerton	<i>h</i> Wetwang, York
			<i>d</i> Weymouth
		<i>s</i> Oldham	<i>d</i> Whitby
		<i>a</i> Oxford	<i>d</i> Wimbledon
		<i>h</i> Paignton	<i>d, h</i> Windsor and Eton
		<i>h</i> Paisley, N.B.	<i>d</i> Wisbech
		<i>d</i> Penrith	<i>a</i> Wolverhampton
		<i>d</i> Penzance	<i>a</i> Worcester
		<i>d</i> Pershore	<i>d, h</i> Worthing
		<i>a</i> Perth	
		<i>a</i> Poole	<i>a</i> Yarm
		<i>d</i> Port Erin, Isle of Man	<i>d</i> Yeovil
		<i>d</i> Preston	<i>a, d</i> York
		<i>d</i> Prince's Risboro'	<i>d</i> Youghal



## LIST OF CONTINENTAL AND FOREIGN DARK-ROOMS.

PLATES and photographic material may be obtained at the following towns on the Continent:—

<i>Australia.</i>	
† Adelaide	† Melbourne
<i>Austria.</i>	
Vienna	Prague (Adolf Fische, Ferdinand Strasse, 23)
Vienna (Oskar Cramer, The Graben)	
<i>Egypt.</i>	
Alexandria (Hess and Co.)	Cairo (Hess and Co.)
<i>France.</i>	
Cannes (Buisson, 12, Boulevard de la Croisette)	Paris (Maison Molteni Rue Chateau d'Eau, 44)
Mentone (M. An. Fosse, Rue Partoneux)	San Raphael (M. Ferrari, photographer)
Nice (M. Ferrari, photographer)	
<i>Germany.</i>	
Berlin (R. Talbot, Kaiser Wilhelm Strasse, 46)	Dresden (Ernest Kersler, Briest Strasse, 3)
Dresden (C. F. Bernhardt, Palais Gutenberg)	Frankfort-on-Main (Haaks & Albess, Kirchner Strasse)
Dresden (E. Kaden, 12 and 14, Grunalen Strasse)	Hanover (S. Federlein, Louisenstrasse, 2)
	*Mainz
<i>Greece.</i>	
Athens (Arthur Hill, Lloyd's Agent)	
<i>Holland and Belgium.</i>	
Amsterdam	Blankenburgh
Antwerp (L. Van Neck, Rue Klapdorp, 10)	Dinant
Brussels (L. Van Neck, Rue Montague aux Herbes)	La Hague
Potagères	Liège
	Ostend
<i>Italy.</i>	
† Alessandria (Castellani, Corso Roma)	† Milan (Bathista Borghi, Via Angello, 17)
† Bergamo (A. Tarramelli, via Toregato Tasso, 22)	† Milan (Pietro Piellavinci, Via Orefici)
Bologna	Naples (Guilio Du Besse)
† Bologna (Sorgato and Belvedere, Via Farina, 24)	† Novaro (A. Zenoni, via Ospedal)
† Casale Monferrato (A. Bertolio, Via Garibaldi, 6)	Padua
Corso	Peruggia
Florence (Pietro Sbisa, Piazza Stella Signoria, 4)	Ravenna
Gratz	Rome (J. Juliana, Via Babuino, 147)
† Genoa (A. Sotteri, Via Carlo Felice, 10)	Rome (Pietro Sbisa, Fia del Corso, 149)
† Genoa (A. Speiche, Solita S. Gerolamo, 3)	Rome (Oreste Ducchi, Piazza Nicosia, 27)
Genoa (Badino, Portici Vittorio Emanueli)	San Remo (J. Scotto, Rue Victor Emmanuel, 16)
Genoa (Carlo Coppo, Via Guilia, 43)	Spezzia
† Leghorn (U. Bettini, via Ricasoli, 18)	Turin (A. Berry, via Roma, 1)
	Venice
	† Venice (Gerolamo Mankovain, Optician)
<i>Japan.</i>	
d Yokohama	
<i>*Malta.</i>	
<i>Norway and Sweden.</i>	
Bergen (J. Peter, Torvet, 16)	Stavanger
Bergen (Messrs. Bennett, the Tourist Office, 18, Porvet)	Stockholm
Christiana (H. Abel, Carl Johans Gade, 45)	Trondhjem
<i>Portugal.</i>	
Lisbon (J. J. Ribeiro, Rue Aurea, 222)	
<i>Russia.</i>	
Astracan	Poltava
Charkoff	St. Petersburg (T. Jochim and Kieff Co., Petite Morskaia, 4)
Moscow	Samara
Odessa (B. Gotleba, Pochtobia Street)	Saratoff
	Varsovie

\* Towns marked thus come under the AMATEUR PHOTOGRAPHER Register, as the gentlemen residing there are amateurs, to whom an introduction is necessary.

† All these dealers have Dark Rooms.

*Spain.*

Barcelona (F. Arenas, Plaza Regomi, 5) \*Cadiz

*Switzerland.*

Bex (Hotel Bains et Grande des Salines)  
 Bex (Hotel des Bains, director, M. C. Hiele)  
 Chésières, s/Ollon, cant. de Vaud (Hotel du Chamossaire, director, M. H. Amiguet)  
 Davos-Platz, cant. des Grisons (Hotel d'Angleterre, directr. M. C. Demmer)  
 Geneva (E. Baud, Rue Verdaine, 11)  
 Geneva (Philippe J., Cour de Rive, 11)  
 Hotel des Avants, nr. Montreux  
 Interlaken, cant. de Berne (Hotel Beau-Rivage, directr. M. J. Maurer)  
 Lausanne (Lausanne Amateur Photographic Society)  
 Montreux (Mons. E. Fransioli, Optician)

Pontresina (Hotel Steimboln)  
 Territet (Englemann, Chemist)  
 Thoun, cant. de Berne (Hotel Freienhof, director, M. G.-R. Engemann)  
 Vevey, cant. de Vaud (Grand Hotel de Vevey, director, M. E. Michel)  
 Vevey, cant. de Vaud (Grand Hotel du Lac, director, J. Tappert)  
 Vevey, cant. de Vaud (Hotel Pension du Panorama, director, M. N. Blotnitzki)  
 Villars s/Ollon, cant. de Vaud (Hotel du Grand Muveran, director, M. A. Petter Genil-lard)  
 Witzig, cant. de Zurich (Hotel du Château de Laufen, director, M. C. Wolter)  
 Zurich (R. Ganz)

*Turkey.*

Constantinople (Cavachache Brothers, 675, Grande Rue de Pera) Smyrna

*Turkey, Asiatic.*

Beyrout Syria

## Notes from the Liverpool Centre.

(By our District Editor.)

THERE is nothing very new or startling to record of our societies this week. Several meetings are on the tapis, and we look to these to give us something of interest to talk about.

The experiments with the changing tent which I noted a week or two ago continue, and I am promised the results arrived at in detail in a day or two.

A familiar figure to some of our oldest members has turned up at the Liverpool Society's Rooms. This is Mr. O. R. Green, who, in one of the Society's albums, has a print off the first 10 by 12 emulsion plate ever exposed. Mr. Green takes deep interest in the 1891 exhibition, and is likely to be seen in some fresh 1890 work.

A new member, on Monday, exhibited some excellent views taken by the Swinden and Earp hand-camera, printed on aristotype paper, and using the simple method mentioned by your correspondent "A. W. D." on page 164, in last number of the AM: PHOT: In a week or so this member promises to show some work, also taken by a Swinden and Earp camera, done by his father, who on his eighty-fourth birthday was presented with the instrument by his son. Verily a veteran worker this!

Mr. Sinclair asks me to correct his formula given last week. It is:—

I.					
Eikonogen ..	..	..	..	..	$\frac{1}{2}$ oz.
Sulphite of soda ..	..	..	..	..	2 "
Water ..	..	..	..	..	20 "
II.					
Washing soda ..	..	..	..	..	2 oz.
Carbonate of potash ..	..	..	..	..	2 "
Water ..	..	..	..	..	20 "

For use take 1 oz. of No. 1,  $\frac{1}{2}$  oz. of No. 2, and  $\frac{1}{2}$  oz. of water.

Several interesting and remarkably good studies hang in the Lord Street rooms. Mr. E. M. Tunstall has a frame of particularly good lantern slides taken during the Convention week at Chester. Mr. J. A. Forrest shows a panoramic view of three pictures, exquisitely mounted on a slate background, the joining being exceptionally neat and effectively done. The uniformity in tone, in fact, all through is astonishingly good.



## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRKENHEAD PHOT: ASSOC:**—The ordinary meeting was held on the 11th inst. The business before the meeting was a discussion on "Printing," opened by the Hon. Secretary. Members who took part in the discussion showed results of their experiments with Scholzig's green-glass method. Messrs. Archer and Sons exhibited their new biunial "one-light" lantern, and the "Guinea" detective camera, and Messrs. Sharp and Hitchmough a new enlarging camera.

**CARDIFF AM: PHOT: SOC:**—A large number of members of the above Society attended the first meeting of the winter sessions on Friday last. The new quarters at 34, The Castle Arcade, Castle Street, were unanimously approved, and until other arrangements can be made, Mr. John Storrie kindly offered the loan of his portable dark-room. The session promises to be instructive, several important fixtures having been made. Mr. Booth promised to render a report *re* progress of the county survey. Mr. Tom Evens was elected an ordinary member.

**HOLBORN CAMERA CLUB.**—At the meeting held on the 4th inst., Mr. Wall, who was down to give a lecture, was unable to be present, as he had only just returned from the Continent. Mr. Smith read a paper from the *New York Sun* on "Snap-shot Photography." Mr. Cobb passed round prints of the S. C. Camp. Mr. Gay also showed a series of Kodak views.

**LEWES PHOT: SOC:**—The annual meeting was held on the 2nd inst. Mr. J. G. Braden presided. The financial position of the society proved to be very satisfactory, the balance-sheet for the year showing a balance in hand of £11 10s. 3½d. The balance from the Photographic Exhibition added to the funds of the society the sum of £4 16s. 1d. The Secretary stated that the society still continues to prosper, numbering at present forty-five members, against thirty-eight in the previous year. Ten ordinary meetings have been held during the year, which have been fairly well attended. The purchase of a lantern for members' use, and also a bookcase for the society's books has been contemplated for some time, and will be carried out as soon as possible. The report and balance sheet were unanimously adopted. Mr. J. G. Braden was re-elected President of the society, Mr. J. Tunks Vice-President. Mr. E. J. Bedford was again proposed as Hon. Secretary, but he said that he thought it quite probable that if he undertook the office he should have to resign in the course of the year. He expressed himself willing to perform the duties on condition that he should be released from the office should occasion arise. Mr. Bedford was unanimously re-elected on this condition, and the President thanked him in the name of the society for his past valuable services in furthering the interests of the society. The Committee, consisting of Messrs. P. J. Morris, E. Miller, C. R. Wells, and G. J. Wightman, were re-elected, and Mr. Funnell was elected to fill the vacancy caused by the resignation of Mr. D. Blagrove, jun. Mr. Potter (Brighton) was elected a member of the society. Mr. A. H. C. Corder will read a paper at the next monthly meeting on "Printing Processes."

**LEYTONSTONE AND EPPING FOREST PHOT: SOC:**—The monthly meeting was held on Wednesday the 3rd inst. The subject was "Instantaneous Photography," opened by Mr. H. W. Bennett. In the course of an interesting and instructive paper, Mr. Bennett pointed out that there are two widely different classes of work to be done with the shutter—(1) those subjects in which figures etc., moving slowly are used as aids of the composition, and (2) those in which objects moving rapidly form the subject of the picture. In his opinion subjects coming under the first class could be better obtained with a slowly working shutter than with the cap, as the use of the shutter left the operator free to expose at the right moment without excitement. Subjects of the second kind should be only such as have a different aspect when in motion from that which they have when at rest; a railway train at full speed was therefore not worth photographing, as the result would be the same if the train were taken when at rest. In Mr. Bennett's opinion the drop-shutter was the most useful, from its simplicity. He exhibited several kinds, one of them a very effective drop-shutter of his own design and construction, giving exposures down to the hundredth part a second.

**MANCHESTER AM: PHOT: SOC:**—On Tuesday, the 9th inst., the business included report of the rambles to Bolton Abbey, Alderley, and Lymm; and arrangements for rambles to Biddulph Grange, Wardley, and Worsley. Mr. T. M. Brook described a method of printing bromide paper with the "hydro-anglo-cum-soda" developer, using separate "cloud negatives" therewith, and further described a simple and improved method of printing lantern-slides by contact; and Mr. J. A. Furnivel exhibited and described a new optical lantern, and read a paper entitled, "The Lantern: how Used, and what can be Done with it." The lecture was illustrated with numerous experiments.

**MORLEY AND DISTRICT AM: PHOT: SOC:**—A meeting was held on September 2nd, at the members' rooms in the Temperance Hotel, Mr. S. Tomlinson in the chair. After the usual business, a paper was read on "Light," by Mr. J. Sanderson. A capital discussion took place, in which most of the members took part.

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES PHOT: ASSOC:**—The members of the Haltwhistle Photographic Society, and the above Association will have an out-door meeting to Gilsland, Naworth, and Lanercost, on Thursday, the 18th Sept., Mr. M. Auty, of Tynemouth, leader. Train leaves Newcastle at 6.25 a.m. for Gilsland Station.

**SHEFFIELD PHOT: SOC:**—The monthly meeting was held on the 2nd inst., when the members of the Rotherham Photographic Society were present, Mr. B. J. Taylor in the chair. Mr. Leadbeater, of the Rotherham Photographic Society, presented the Society with a copy of the group that was taken by him at the Bolton Abbey excursion. Mr. Howson, of the Britannia Works Company, gave a practical demonstration, subject "Printing on Alpha Paper." After exposing several prints with various exposures, he proceeded to develop the same, showing great latitude of exposure. He also claims for the Alpha paper that it gives great detail, and a various assortment of colours, and matt-smooth, or polished surface similar to the ordinary silver prints.

**SOUTH LONDON PHOT: SOC:**—At the meeting held on the 5th inst., Mr. F. W. Edwards being in the chair, Mr. C. Hoddle gave an interesting and practical demonstration on mounting and finishing prints, in the course of which he showed how to prepare at home self-adhesive mounts, which, judging by the pictures mounted under the eyes of the members, were a perfect success. A hand-camera, by Crouch and Co., of Barbican, E.C., together with specimens of the work done, were handed round. During the evening five names were handed in as proposed members.

**SOUTHSEA AM: PHOT: SOC:**—At an ordinary meeting held on the 3rd inst., Captain Lamb, President, in the chair, the Hon. Sec. (Dr. F. Lord) announced that the Committee of a bazaar proposed to be held in October, at the Town Hall, in aid of the funds of a local charity, invited the members to exhibit specimens of their work, and also give a lantern entertainment during the week. The members present promised their support. After the usual routine business, Mr. Hammond showed, through the society's optical lantern, about fifty slides, from negatives mostly taken by his hand-camera. They were all well-chosen subjects. The annual meeting of the society will be held on October 4th.

**STAFFS, POTTERIES AM: PHOT: SOC.; BURSLEM.**—Monthly meeting, September 2nd, Mr. S. Crosse in the chair, in the unavoidable absence of the President. A very good attendance of members, one new member being elected. Mr. F. C. Powell being unable to give his demonstration this month on "Bromide Printing and Lantern Slide Making," Mr. E. B. Wain kindly gave a very interesting and practical demonstration on "Bromide Printing." At the conclusion a vote of thanks was accorded Mr. Wain, and also one of congratulation upon the favourable mention which he has obtained this season in two of the AMATEUR PHOTOGRAPHER Monthly Competitions. Next month Mr. Powell will give his paper on lantern-slide making, and has also promised to prepare a number of slides, which will be shown at the conclusion of the paper.

**WALLASEY PHOT: ASSOC:**—The usual monthly meeting was held on the 3rd inst., Mr. Jas. Gill in the chair. A paper was read by Mr. C. B. Reader on "Lantern Work," in which he treated of the various matters indispensable to the successful use of the lantern, and offering several practical suggestions. A discussion arose upon the paper, and at its close a vote of thanks was awarded to the author. Specimens of prints printed through green glass on Scholzig's paper were submitted, though opinions seemed diverse as to the statement that results equal to platinum-type could be obtained. Messrs. Sharp and Hitchmough ex-



hibited a new enlarging camera they are about bringing out; and Messrs. Archer and Sons their new biennial lantern, which claims to be very simple in working, every part being under the eye of the operator, and one light only being used, in place of two, as in the ordinary lantern.

**WEST SURREY AM: PHOT: SOC:—**A meeting was held on the 3rd inst. Mr. Swinger delivered an interesting and instructive lecture on "Hand-Cameras and their Work," illustrating his remarks by reference to a Facile and numerous prints, the result of his work with that instrument. Mr. Davison brought and explained the working of the Key hand-camera, while the Hon. Sec. treated Messrs. Shew's Eclipse and Messrs. Humphries' Quadrant, which the manufacturers had kindly lent for the purpose, in a like manner. Mr. Swinger was congratulated on the examples of work he had produced, and the members generally spoke in high terms of the Facile. The Hon. Sec. took exception to the usefulness and convenience of that instrument compared to the Eclipse, and was of opinion that no hand-camera approached Messrs. Shew's, used with a roll-holder for the sizes up to 5 by 4, but beyond that size he held that it was necessary for artistic work that the scene as portrayed on the focussing screen should be seen by the operator, and that focussing was absolutely

necessary. The next meeting will be held on October 8th, and will be a lantern night.

**FENN'S SENSITISED ALBUMENISED PAPER.**—The paper sent us by Mr. Charles Fenn, of Fairholme Road, West Kensington, is of most excellent quality, printing rapidly and giving good uniform tones. It is guaranteed to reach any part of the world pure in colour, and to keep for six months. It is sold at 14s. 6d. per quire, sent out on thick wooden rollers. Less quantities can be had at slightly advanced prices, and if cut to size the price is 1s. per quire extra.

**WATERLOO "LIGHTNING" PLATES.**—We have recently had the pleasure of putting these plates to a severe test, and they have come out of it with great success. They are thickly coated, extremely rapid, and after testing them on a dark wood, one is almost led to think that isochromatic plates, with their great care in manipulation, light screen, etc., are unnecessary, the whole details in the darkest shadows coming out very distinctly. They develop well with any of the ordinary developers, but we were most successful with hydroquinone. Altogether the plates are admirable.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4149. **Aristotype Paper, Permanency of.**—Can any one tell me if aristotype paper is permanent?—**A. DE VELOPER.**
4150. **Deadening Background.**—I have a background painted in oil which is very shiny. Can you or any of your readers advise me what to do with it to give it a dead, dull appearance?—**PROMATEUR.**
4151. **Stage, Photographing a.**—Would some one kindly help me in the following:—I want to photograph a stage, say, 15 or 20 ft. long, with, perhaps, eight or ten actors on, with the flashlight. Could a lamp be made that would give sufficient light? Would one be enough? What quantity powder to use? After focussing, should the footlights be put out or not?—**STAGE.**
4152. **Porcelain.**—How are porcelain photographs made—taken direct or by contact?—**PORCELAIN.**
4153. **Flash-Light.**—Will some one tell me if I can take a room 45 ft. long by flash-light, and what height ought the light to be?—**H. I. C.**
4154. **Borax Bath.**—Will somebody please tell me what the effect of borax is in the toning bath?—**H. I. C.**
4155. **Swing Back v. Sliding Front.**—In photographing some high object, such as a church steeple, we are generally told to keep the camera level, and raise the front carrying the lens, as it strains the lens less than tilting the camera and then levelling the back. Prof. W. H. Pickering, in the "International Annual," 1890-91, p. 252, takes the opposite, and recommends tilting the camera and levelling the back; raising the front strains the lens more. Which is right?—**C. A. M. W.**

4156. **Transparent Vignette Paper Sticking to Negative.**—Having put a negative to print in the sun with one of the above between the negative and paper, the consequence was that the heat caused the varnish, or whatever the vignette paper is covered with, to melt and stick to the negative. Can anyone suggest a remedy?—**D'ARCY.**

4157. **Reference Wanted** to a letter advocating use of ammonio-sulphate of iron in the oxalate developer, which I have hunted for in vain?—**D'ARCY.**

4158. **Development.**—Given a number of exposed plates, exposure unknown, how to proceed with development, using Thomas' and the iron developer—on the tentative system, with a weak developer at first, or with developer full strength, and then proceeding as results demand?—**D'ARCY.**

## QUERIES UNANSWERED.

- July 11th.—Nos. 3979, 3989, 3992, 3995.  
18th.—Nos. 4009, 4020, 4027, 4029.  
25th.—Nos. 4036, 4045.  
Aug. 8th.—Nos. 4061, 4066.  
15th.—No. 4076.  
22nd.—Nos. 4089, 4090, 4093, 4096, 4100, 4104.  
29th.—Nos. 4111, 4113, 4116, 4123, 4124, 4125, 4127.  
Sept. 5th.—Nos. 4129, 4130, 4131, 4133, 4135, 4136, 4137, 4141, 4143, 4145, 4147, 4148.

## ANSWERS.

4057. **Carbon Prints on Glass, etc.**—The reticulation is due to over-rapid drying after sensitising.—**D. ANDERSON BERRY.**
4086. **Malta.**—Half-plates can be purchased of Ellis, photographer—Ilford and Mawsons (any other on order)—at cost a little over that of English prices and carriage. Out-of-door photography is almost prohibited in Malta.—**R. N.**
4102. **Removing Varnish.**—Soak in methylated spirit, and gently rub the varnish off with a cotton-wool pad.—**D. ANDERSON BERRY.**
4110. **New Eastman Films.**—The glycerine bath ought to be omitted in this damp climate; *vide* **AM: PHOT: vol. xi., p. 43.**—**D. ANDERSON BERRY.**
4122. **Residue.**—Place some strips of zinc or copper in the jar of used-up hypo. The silver will be thrown down as metallic silver; *vide* **AM: PHOT: vol. viii., p. 342.**—**D. ANDERSON BERRY.**
4138. **Printing through Green Glass.**—"Greenhouse" should place the dark green glass on outside of printing-frame, and kept in its place with drawing pins. The green-glass should be a little less than the outside measurement of printing-frame, and thoroughly cover the negative below it. The above mode of printing is very slow work, taking a whole day or more to print one, and longer still if the negative is rather dense.—**G. T. M.**
4128. **Printing through Green Glass.**—The advantage of this process is two-fold:—(1) In the case of weak negatives, (2) in obtaining tones closely resembling platinotype, but we very much doubt the absolute permanency of any silver printing. Ordinary albumenised sensitive paper may be used. Very fine effects can be obtained with aristotype paper, especially if squeezed on ferrotype plates if a highly glazed surface is required, and on finely ground glass, taking the usual precautions, if a matt surface is preferred. We have been unable to detect any difference between the tones of prints produced by this process and platinotype. There is one other paper which gives very fine results, viz., matt paper; but in using this, printing must be carried so far as will give the appearance of being

tremendously over-printed. The toning bath we find most useful is Werge's formula of borax:—

Borax ... .. 1 oz.  
Water ... .. 80 "

Gold chloride, 1 gr. to each 8 oz. of the above. Now with regard to the shade of green, we have used that ordinarily purchased at any glazier's with most satisfactory results. We are now experimenting with green tissue paper—a light green and also a yellowish green, as well as a green of a deeper colour. We have an idea that the same effects may result as with green glass placed immediately under the negative. We have never experienced the misfortune complained of—that of smashing negative or glass. If "Greenhouse" will communicate with us through the Editor, we shall be pleased to forward samples of tints that we use.—**D. E. GODDARD.**

4132. **Ilford Paper.**—I have used this for twelve months, and with good results. With a little practice it is possible to get most artistic tones, and it gives good prints from any negative almost. I have seen paper two years old in perfect condition. It must be kept dry and away from air.—**J. H.**

4134. **Photographic Mounts.**—These can be got from Fallowfield, Charing Cross Road, W.C. He quotes them in his list:

	s.	d.
Carte-de-visite cards	...	1 0 doz.
4½ by 3½	...	1 3 "
Cabinet	...	1 6 "
6½ by 4½	...	1 8 "

**HYDRO.**  
4138. **Quick Plates.**—Mr. Gambler Bolton, F.Z.S., who is certainly the most successful animal photographer, uses the Ilford special rapid (red label), so that "Novice" could not follow a better example.—**J. H.**

4138. **Quick Plates.**—Ilford plates generally answer; if you don't succeed, try the Paget Prize plates; I have got very good results with them.—**HYDRO.**

4139. **Robinson's Developer.**—This will suit Ilford plates admirably; in fact, it is, when dissected, of very similar composition and strength. To correct errors in exposure, increase or decrease quantity of ammonia solution taken, or add water for over-exposure.—**J. H.**

4140. **Exposure Meter.**—Decoudun's photometer is very well spoken of. I recently had a Watkin's exposure meter lent to me to try; the result was I soon ordered one for myself, and would recommend "Novice" to get one; it is certainly worth the money.—**HYDRO.**

4140. **Exposure Meter.**—The best—and therefore the cheapest—and simplest exposure meter for an amateur is, undoubtedly, the Watkin's exposure meter.—**D. ANDERSON BERRY.**

4142. **Faint Negatives.**—Is your exposure correct? If it is, then the thinness of your negatives is due to under-development. Keep your plates in the developer until sufficient density is obtained. If the action flags, add a few more drops of A.—**D. ANDERSON BERRY.**

4144. **Lead Toning Bath.**—The following are Dr. Kibbler's instructions:—"Prepare the second toning bath, which includes the fixing, in the following way:—Add 1 gr. of finely powdered acetate of lead to every ounce of a solution of hyposulphite of soda of the strength of 2 oz. of hypo to 1 pint of water. No ammonia is required. Put the solution of hypo with the lead in a bottle, and well agitate. The lead should be entirely dissolved and the solution should remain clear, and not show any sign of milkiness, as would be the case if the acetate of lead were mixed with plain water." A somewhat similar formula is given in the **AM: PHOT: vol. xi., p. 276**, and yet another on **vol. x., p. 379, q v.**—**D. ANDERSON BERRY.**



4146. **Hastings and Twelve Miles Round.**—As far as I can remember, none of the following places are further than twelve miles from Hastings, and some are much nearer; and are all well worth visiting with a camera. Hollington church in the Wood, Bexhill, Crowhurst church, Sedlescombe, Battle, Winchelsea, Rye, Bodiam, Hurstmonceux.—H. I. C.

4146. **Hastings and Twelve Miles Round.**—Hastings abounds with picturesque surroundings. Briefly, Rye, ten miles rail, drive, or walk; Winchelsea, near Rye; both these places are full of interest, and very popular resorts amongst artists; Northiam and Bodiam, about twelve miles drive or walk; Robertsbridge (by rail), about four miles from Bodiam; Battle, by rail or drive; Pevensey and Hurstmonceux Castles, Udimore and Brede, about ten miles drive. Any further information, with use of dark-room, will be supplied by local agent for the AMATEUR PHOTOGRAPHER.—A. BROOKER, chemist, Hastings.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PROT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

A. M. G.—Solutions, etc., safely to hand; we are having the subject investigated, and will write you.

E. U. P. (Italy).—Your prints are exceedingly good, and the composition of 3 and 4 admirable—in the former the lighting might have been improved. In No. 2 the figure of the priest is out of place, and does not in any way help the picture. We shall be glad to see your work in our competitions. We retain the prints with many thanks.

LEWON.—The lens evidently does not cover; we have no doubt that the dealer from whom you bought it will exchange it for another. We should advise your communicating direct with him. No such case has before come under our notice.

COUNT D'ASSCHE (Paris).—We should advise A. The B lens is a very first-class instrument, and will give you quite as much satisfaction as C.

FIELD AND CO.—See paragraph in another column.

SHUTTER.—Buy a new piece of tube, or repair with india-rubber solution.

J. H. TELFER.—Send the lenses on if you like, but we should advise you to purchase a good lens from one of our advertisers.

R. GILL.—A very instructive article is published in the May issue of the *Photographic Societies' Reporter*, page 206, which very fully explains the usefulness of the apparatus.

LEO.—You had better buy an elementary handbook; "Experimental Photography" (Leaper), or "Photography for All" (Harrison). You should have received the pyrogallic acid in a bottle of about 10 ozs. capacity, add the bromide of ammonium, fill the bottle up with water, then add the nitric acid; after which take 1 oz. and dilute with 19 ozs. of water and follow on as directed. No. 2: Yes. No. 3: Fluid ounces and avoirdupois weight. The print shows promise. Print and tone deeper. Send us your work in a month's time. Cannot reply by post.

W. GRIFFITHS.—Your letter is published in our correspondence columns. We shall be pleased to see the camera as soon as you have it ready for the market. The testimonials are very encouraging. The fac-simile letters will be a novel means of advertising. We can, of course, reproduce a letter exactly from a photograph.

B. DAVIDSON.—Very pleased to hear that the medal was awarded to you. Send us the inscription you wish engraved upon it.

G. B. BISAT.—Will write you a few lines at the end of the week.

T. F. HEWITT.—You must get the consent of Messrs. Cassell to reproduce their "Academy Pictures," or you will infringe the copyright law.

W. B. M.—We will send you the address. Tell them what you want the paper for, and they will supply it of proper thickness.

CESTRIA.—Never having seen the camera, cannot express an opinion as to its capabilities. The print you send is very fair for a beginner; you might have focused a little sharper, and given a rather shorter exposure. Send us another print in a month, and in the meantime buy and read up "Experimental Photography" (Leaper), is.

A. P. G. D.—We should advise the enlarging apparatus sold by E. A. F. in the order given.

G. H. JAMES.—Will advise you in a day or two as to date.

UNIVERSAL SENSITISED PAPER COMPANY.—Sample received. Will report next week.

M. H. A.—The painting is sure to show. Why not vignette them?

PONTRESINA.—No. 1 (a) What is termed the "uniform standard?" (b) the relative exposures would be f/22, f/28, f/35, f/40, f/49, or practically so; (c) is the distance between the stop and the screen; the ratio of the stop is found by dividing the focal length of the lens by the diameter of the stop. No. 2: They are always announced in the advertising columns. No. 3: Probably stained with pyro; not likely to be affected in any appreciable degree. No. 4: Write direct to the Company; we have not their list, and they will be able to advise you best; if you have no gas, use a methylated spirit stove or lamp.

FALCO.—Cabinet pictures are usually taken on half-plate negatives, and trimmed down.

YOUNGSTER.—No. 1: The lens generally sold with the camera you name is a quick one, and, unless the exposure should be so long, cap off and on, with a good light, in many cases would give you a good picture; buy Wheeler's exposure tables. No. 2: Yes, certainly, or make them yourself out of card. See previous answers. Let us see some of your work, and we shall be able to tell you more about it.

JOHN CAMPBELL.—Many thanks for the charming prints sent us for Hospital Albums. We hope to see you sending to our competitions.

A. DANZIGER.—Afraid we cannot help you much, but should say it is to be simply painted on.

PERCY W. FORSTER.—Will write you at end of week, with conditions, etc.

E. G. LEE.—Will look through the fixtures, and let you know.

REV. J. C. HARKNESS.—Conditions shall be sent you in a day or two.

A. H. GROVEST.—Will let you have conditions, etc.

F. E. BROWN.—We will attend to your request.

ARTHUR W. NICHOLLS.—Shall be very pleased to do what you ask; have written to you.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Cameras, etc.**—Whole-plate camera, three double backs, with back and side swing, in excellent condition; £6 6s.; with case if required.—B., Clifton Mill, Garstang.

**Camera, Lenses, etc.**—For sale, whole-plate square cloth bellows camera, in good condition, whole-plate Dallmeyer's landscape lens, whole-plate Lancaster's wide-angle Rectigraph lens, one single and two double slides, printing frames, dishes, accessories, backgrounds, etc., cheap.—J. F. Foulds, 13, Vincent Road, off Barber Road, Sheffield.

**Enlarging Lantern.**—Optimus enlarging mahogany-body lantern, 7 in. condensers, four carriers, fitted with limelight, comprising high-pressure gas jet, two 9 ft. gas bags, pressure boards, tubing, iron retort, quite new, no lens; exchange for Meagher's 10 by 8 camera and backs.—Geo. Potts, Carlyle Road, Chesterton, Cambridge.

**Galvanic Battery.**—Galvanic battery, 2 guineas battery for 80s.—Robert Murdoch, Penn Road, Wolverhampton.

**Hand-Cameras.**—Dot detective hand-camera, carries 12 plates; new; 24s.; bargain.—Barnes, 86, Salcott Road, Clapham Junction, S.W.

**Lenses.**—Ross' 12 by 10 doublet lens, good condition; price £8 10s.; a bargain.—W. H. Wallis, Rayleigh.

Wide-angle lens, half-plate; approval; deposit.—W. Turner, Merewood, Windermere.

**Lenses, etc.**—Lancaster's whole-plate lens and shutter, six Tylar's double backs, to fit 3 by 3 camera, lamp for gas; £2 10s.—Apply, General Agency, Bank Buildings, Victoria Street, S.W.

**Negatives.**—Fifty quarter-plate negatives, instantaneous views of London, suitable for making lantern slides from; price 1s. 6d. each; specimen print and list, six stamps.—John Stabb, 139, Queen's Road, Bayswater.

**Outfit.**—Half-plate outfit: camera, all movements (by Wood, Cheapside), three double backs, Optimus rapid rectilinear lens, all in leather lock-up case; tripod in case; one 19 by 13, one 10 by 8 three 7 by 5 porcelain dishes, ebonite ditto; scales, chemical box, cutting shapes, lamps, vignette glasses, measuring ditto, squeegee, printing frames, etc.; lot £2 12s. 6d.; cost £11; or separate; only used one season.—W. J. Woods, 57, High Street, Maidstone.

**Sets, etc.**—Half-plate camera, Lancaster's 1889 Instantograph, no lens, one double dark-slide, and tripod, nearly new; cash £2.—Mr. Shaw, Photographer, 15, Benedi Street, East India Dock Road, E.

Whole-plate set, fitted lens and Guerry's pneumatic shutter, £5 5s.; half-plate set, case, £2 10s.; quarter Instantograph, £1 15s.; handsome scenic background, 15s.; large magic lantern, 35s.—Potter, 2, Peter's Street, Dereham Road, Norwich.

Rouch's portable 10 by 8 camera, three double slides, waterproof case, Ross' No. 10 P.S., sliding tripod, perfect condition; £14; deposit.—Colonel Malden, Ventnor.

Lancaster's 1890 half-plate Instantograph camera, dark-slide, tripod, fitted with 7 by 5 rapid rectilinear doublet lens, f/8, with stops, new; bargain, 72s.—Herbert Rowe, Walbridge, Stroud, Glos.

Quarter-plate camera set, complete, nearly new; 14s.—Apply, Reid, 160, Albert Road, Peckham.

Rouch's whole-plate patent portable camera, double swing, rising front, reversing back, fitted with Wray's rapid rectilinear lens (Waterhouse diaphragms), two double dark-slides, and Rouch's sliding tripod, complete, almost new; £8 10s.; cost £13.—Dalton, 140, Anerley Road, S.E.

Lancaster's quarter-plate Instantograph, with lens, shutter, slide, and tripod stand, in excellent condition; 25s.—Sutton, Clarence Terrace, Barton Street, Gloucester.

Half-plate camera, three double slides, R.R. lens and stand; 80s.—Caraberg, 8, Meredith Street, Clerkenwell. Before 8 o'clock.

Shew's pocket camera, quarter-plate, adjustable focus, four double backs, focussing screen and waterproof cloth, 3-fold sliding leg stand, waterproof sling case, lined, together cost £7; exchange for Rouch's, Swinden and Earp's, Key, or other Magazine detective, with focussing arrangement; or exchange with cash for thoroughly good, light half-plate long-extension camera, R.R. lens, three double backs, and carriers for quarter plate, sliding leg stand, case, and good developing tent.—A. B., 24, Nettleton Road, New Cross, S.E.

**Shutter.**—Half or quarter plate Newman's shutter, not soiled, 21s.; or exchange for quarter-plate hand-camera.—Reeves, 24, Harvard Road, Lewisham, S.E.

**Tandem.**—Marlboro' Tandem, latest pattern, not ridden 20 miles; cost £38; price £20; carries photographic apparatus; photograph sent.—Pitman, Amen Corner, E.C.

## WANTED.

**Lantern.**—Good 4-wick lantern (Newman's preferred); cheap for cash, or exchange to value in photographic apparatus.—Westrop, Abbots Court Lodge, Chester.

**Lenses.**—Long-focus portable symmetrical for rapid rectilinear lens, by good maker; approval.—E. G. Richardson, 27, Newgate Street, E.C.

Quarter-plate R.R. lens, for hand-camera.—B., 77, Queen's Road, Croydon.

"Photographic Quarterly."—"Photographic Quarterly," part 1.; state price; post paid.—Porter, Rhodes, Manchester.

**THE AMATEUR PHOTOGRAPHER**  
Reading Cases - - Price 2/-  
Binding Cases - - " 1/6  
Volumes - - - - " 7/6  
Post Free from the Publishers.



# The AMATEUR PHOTOGRAPHER

Telephone No. 1645

Telegraphic Address: VINEY, LONDON

Edited by CHARLES W. HASTINGS

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FRIDAY, SEPTEMBER 19, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

THE photographs received for the AMATEUR PHOTOGRAPHER Monthly Competition No. 16, "Instantaneous Animals, etc.," are of varied interest. First prize,

*Silver Medal*—LOUIS MELDON.

Mr. Meldon sends us a photograph of a bicycle race of four crack riders—Piggott, Meeredy, Ducros, and Stadwicke. The course was two miles, and the time 5 min. 52 sec. The photograph is a marvel of instantaneous photography. It was taken with a Ross R. S. lens of  $9\frac{1}{2}$  in. focus, working at  $f/7$  in sunlight; the exposure was  $\frac{1}{100}$  of a second on a Paget xxxxx plate, developed with pyro and ammonia, and printed on Obernetter paper toned with the sulpho-cyanide bath. The print will be reproduced in collotype in the October number of the *Photographic Reporter*. It is, without exception, the best photograph of cycle racing that has ever come under our notice.

Another competitor, Mr. A. E. Edwards, has sent so excellent a print, "Meet of the South Notts in Chilwell Park," that we have awarded him a prize, viz.,

*Silver Medal*—A. E. EDWARDS.

The members of the hunt, the horses, and hounds are grouped with much taste, and the whole makes a charming picture. Taken on a Wratten and Wainwright's plate, with a Ross R. S., stop  $f/16$ , and a shutter exposure, time not given. The print is on Obernetter paper squeegeed on to ground-glass.

The next prize,

*Bronze Medal*—HENRY KILBURN,

goes to this competitor for his study, "Halloo! Rats!!" of a fox-terrier ratting, which is a composition quite after those of Burton Barber. We regret that he does not send us particulars of lens, etc.

Miss Claire Vaughan Davies sends an admirable photograph of "Puffins on Skromr Island," taken with a Ross R. S., on an Ilford plate; the print is on Obernetter paper. As a study for those interested in natural history, this photograph will be much valued.

Mrs. Benyon sends us a pretty view of "Stukley Manor Farm," which has several good points in its composition. Taken with a Voigtlander lens, on an Edwards Isochromatic plate.

Miss M. L. Simpson sends us "Mr. Stokes and his Beagles," which would have been even better than it is had the dogs all been on the plate; this could have been

arranged. The dogs as a whole are admirably caught, and in no case is there any movement. This picture was taken with a Ross R. S. on a Paget Prize plate.

Space will only permit us to mention one more contribution, "Washing Day—Hung up to Dry," by Rev. G. F. Sharland. In this picture we have a girl washing a puppy, another dog has been playing with a knot in a line, has caught hold of it, and is hanging clear off the ground, hence the title. The photograph was taken on an Ilford plate with Underwood's lens  $f/11$ , and an exposure of about a tenth of a second.

The competition is as a whole a very successful one. In all, some sixty prints have been received. The whole of them will be criticised in the October *Photographic Reporter*, and those mentioned above will be reproduced, in addition to the frontispiece, "The Auld Man," by Mr. Edward Hawkins, and a collotype supplement of Mr. Meldon's "Bicycle Race."

\* \* \* \*

We have the pleasure of making several announcements in our advertising columns of competitions to be held, and would first draw attention to the revised "Monthly Competitions," which have been arranged for dates up to and including the 1st of February, 1891. There are no particularly new features, except that on the entry form provision is made for giving particulars of printing process and toning bath used. This has been done at the request of many who have inspected the prints when out on tour. The alteration in date will give us more time to prepare the criticisms and illustrations for the *Photographic Reporter*. Each competition will be fully reviewed in the *Reporter* immediately following the competition, e. g., Competition No. 17, "Enlargements," October 1st, will be reviewed in the November number of the *Reporter*. The prints will be loaned to photographic societies and others at once after publication of the review.

\* \* \* \*

THE entry forms and conditions of the fourth annual AMATEUR PHOTOGRAPHER Stereoscopic Slide Competition are now ready. Two each Gold, Silver, and Bronze medals and two Certificates are offered for competition. Ten slides are to be sent in by each competitor, who can enter in either, but not both, of the following classes: Class I., "Slides made for viewing in the ordinary Stereoscope," and Class II., "Slides which cannot be viewed in the ordinary Stereoscope." The prize slides will be retained for three months



in order that they may be loaned to those interested in stereoscopic photography. We quite hope to have more slides this year than we have ever had before.

\* \* \* \*

WE have again the pleasure of announcing the AMATEUR PHOTOGRAPHER Lantern Slide Competition (third year). This year we offer for competition four each gold, silver, and bronze medals, and four certificates. Competitors are to contribute ten slides, and may enter in *one only* of the following classes:—Class I., "Landscape, River Scenes, and Seascapes." Class II., "Figure Studies, Genre Pictures." Class III., "Animals, and Instantaneous Pictures (not Landscape)." Class IV., "Architecture, Exterior or Interior." We have thought that these four classes will cover the work usually done by amateur photographers. The prize slides will become the property of the proprietors of the AMATEUR PHOTOGRAPHER, and will be loaned to photographic societies and others. If all the prizes are awarded, the slides will number 160, which will be sufficient to provide an excellent evening's entertainment. The prize winners will have the first call for the set of slides, after which they will be loaned upon our usual conditions.

\* \* \* \*

THE sixth of the series of One-man Photographic Exhibitions will be opened to the public on Tuesday, the 7th proximo, in the rooms of the Camera Club, 21, Bedford Street, Strand. The exhibition will consist of photographs by Mr. Lyd. Sawyer, of Newcastle-on-Tyne. The exhibit will include a representative collection of Mr. Sawyer's well-known photographs, and in addition much new work prepared specially for this exhibition.

\* \* \* \*

WE are asked to notify that intending exhibitors at the Edinburgh Photographic Exhibition should make early application for space. All applications must be received before the end of the current month. The Secretary, Mr. T. Barclay, of 180, Dalkeith Road, Edinburgh, will be pleased to forward official form of application, etc.

\* \* \* \*

CONSIDERABLE interest is being taken in the near approach of the Exhibition of the Photographic Society of Great Britain, which will be opened on Saturday the 27th by the customary conversazione. We hear that many photographs will be exhibited taken without a lens. It is contended that with a "pin-hole" true natural focus will be secured, and the most artistic rendering of the scene portrayed. Subscribers to the *Photographic Quarterly* will have the opportunity of seeing such a picture taken by Mr. Alfred Marshall, reproduced from his negative in photography by Mr. W. L. Coles.

\* \* \* \*

WE are very pleased to notice that at a meeting of the members of the Manchester Amateur Photographic Society the subject of giving lantern exhibitions during the coming winter at the various Lads' Clubs in Manchester and Salford was under discussion, and it was determined to give such exhibitions. Should they prove a success, of which we have no doubt, many more will doubtless be given by members. Some time since a proposal was brought before the members as to the desirability of forming a Photo-

graphic Hospital Fund in connection with the Society, and as the work to be done is one that others may well emulate, we publish the proposal, which took the form of a letter in the *Photographic Record*, the Society's journal, which was as follows:

"Allow me to bring before our members a scheme suggested in the article on 'Philanthropic Photography' in a recent number of the *Record*. An admission was therein made, which I think amateurs in general might own, that the art had been studied, up to that point, more for selfish ends than in any philanthropic spirit. I was particularly impressed with the thought at the time, and have been hoping someone would take it up in a practical manner. There are few pursuits in the domain of art—painters will pardon the presumption—in which such pleasurable results are obtained with such limited skill or pains. I do not desire in any way to discredit photography by this statement. But if an amateur can produce, after one or two seasons' practice, a print which in its sphere may be compared with the work of an accomplished hand, it cannot claim to much skill in the acquirement; and how easy it is to make extra copies. Now, we are taught that if our deeds of charity cost us little, it is little credit we can expect for them, whatever value they may have to the recipient, and if that value be great, our responsibilities are made great accordingly. It has also been said that pleasure cannot be enjoyed until it is shared—the more we give the more we receive, and the most, according as we give to those who are least able to provide it for themselves.

"It was after a visit to one of our hospitals that I was struck with the advantages amateur photography possesses of rendering real happiness to others. Only those who have lain on a sick bed know the monotony of time. Literature, in most cases and for obvious reasons, loses the charms it has in good health. But the sight of a rich landscape full of detail, of scenes familiar or otherwise, will brighten many a weary hour and quicken the imagination which has grown dull and sluggish for want of fresh scenes and thoughts to reflect upon. If every photographer could realise the joy one such print creates in a convalescent ward, there would soon accumulate a good stock of photographs in every hospital and workhouse in the country. And such there ought to have been long ago. Is it not time for us to give of our talents as well as of our money? It has too long been the fashion to absolve ourselves of our duties to the sick by the donation dropped into the Hospital Sunday box. The energy spent in acquiring that amount might have gone much farther expended direct. We pay others to do work we often could do better ourselves. The half-crown given by the amateur photographer, for instance, would be a larger amount spent in prints from one of his best negatives. I trust I am not misunderstood here. Far be it from me to suggest anything that will tend to reduce the annual hospital collections. I wish them increased by collecting results from talents as well as profits.

"I would therefore suggest that our Committee start a Hospital Fund in connection with our society for the receipt of prints from members, not annually, but at every monthly meeting and whenever members might choose to send them. And, instead of having them mounted in albums, which are too heavy to be held by a patient in bed or on a couch, let them be put on cardboard mounts so that they can be distributed at will. Let those who cannot afford mounts send their prints without, and let us vote a sum from our cash account to provide mounts.

"We were complimented by a photographic journal a few days ago upon being a model society. We shall never do anything which will give more claim to the title than the adoption of this proposal. I venture to predict that not only will other photographic societies follow our example, but we shall stir up a worthy spirit of emulation in societies pursuing other studies, and, doubtless, shall move many others to individual action in the same direction."

It was resolved to form the fund, and many of the members have already begun to contribute.

\* \* \* \*

THE Tasmanian Photographic Art Association has now nearly seventy members. During the year nine lectures were delivered. Several competitions and members have been successful at more than one public exhibition.



## Letters to the Editor.

### ARISTOTYPE PAPER.

SIR,—In reply to your correspondent "B. S. A.," take

1 tube (15 gr.) gold to 15 oz. water,

1 oz. sulphocyanide of ammonia to 15 oz. water.

For use, take, say, 1 oz. each solution, and dilute by three or four times as much water. If this tones too fast, add more water. Be sure to pour the gold solution into the sulphocyanide of ammonia, not the reverse.—Yours, etc.,  
A. W. DUNN.  
September 12th, 1890.

\* \* \* \*

### PRINTING THROUGH GREEN GLASS.

SIR,—Seeing Mr. Reginald Bennett's letter on this subject, I wish to give my experience. I have found, beyond doubt, when one has a thin negative it is most beneficial to the print to use green glass, but in a fairly dense negative what auxiliaries do we want? None; but, to prove its use, to my mind, I will quote a piece of my own experience of the past week. A lady asked me if I would give her a copy of a very ancient church I had taken a view of some three or four years back, and, in looking over my stock of negatives, I found it, but oh, how changed from when I last saw it! faded, and almost gone beyond hope of even obtaining a passable print from it, doubtless through my own neglect in not well washing it. I printed one, two, three—no use—behind tissue paper, in a very soft light, all to no purpose; each print made me poorly when looked upon. I then bethought me of the green glass, and strange, but none the less true, I obtained nearly as plucky a print from that poor, sickly, faded negative as the first week it was born. I am simply stating a fact that may be very useful to my brother amateurs. Then, again, our friend, the correspondent of last week's issue, complains of the undue "thickness" in the printing frame. He evidently is not aware that nearly all good professional firms use a piece of plain glass in their printing frame as a "precaution" against the cracking of negatives.

Pardon my occupying so much space, but the green glass I have proved to be a useful thing amongst our little knick-knacks.—Yours, etc.,  
A. W. GOTTLIEB.

SIR,—I notice in last week's AMATEUR PHOTOGRAPHER a letter from Mr. Reginald Bennett, who seems to have been somewhat unfortunate when trying this process. In the first place, my experience is that a negative of medium density does not require exposing to the sunlight for two days, four or five hours in bright sunshine generally being sufficient; but, of course, if the weather is very dull the negative may take nearly two days to print. I have used the green glass both inside and outside of printing frame, but up to the present have not been unlucky enough to smash either glass or negative. I prefer printing with green glass outside the printing frame, as I fancy by doing so the resulting picture is rather softer.

I cannot understand how it is that Mr. Bennett can only obtain a weak slate colour. Does he use the nitrate of uranium toning bath as recommended?

I followed Mr. Gollidge's directions very carefully, with the result that I obtained a most perfect black, and if matt-surface paper is used the prints very much resemble platinotype.

I hasten to give my experience in fairness to Mr. Gollidge, and for fear Mr. Bennett's letter should be the means of deterring

any of your readers from trying this most excellent, although, I believe, not new process.

I am at present out of town, otherwise a specimen print or two should have accompanied my letter for your inspection, but on my return to London shall be most happy to let you or Mr. Bennett see results.

I might mention that I have used various makes and brands of sensitised paper, all with very good results.—Faithfully yours,  
September 15th, 1890.  
WM. WHITEN.

\* \* \* \*

### ENLARGING ON BROMIDE PAPER.

SIR,—I had not experienced any difficulty in working the formula for producing warm tones on bromide paper, given in my paper on Enlarging, though it would seem that it may have been due to the fact that I had only washed the print for ten minutes between the ferri-cyanide of potass. and hypo baths. On seeing Mr. Wain's letter in your last issue I made some experiments, and find, as Mr. Wain says, that if the print, after being toned, is washed for an hour under running water, the tone begins to disappear, and, not only so, I further find that if it is washed for two or three hours, after being passed through the hypo bath, there is also a considerable loss of tone. I therefore tried immersing the print in an alum bath before and after the hypo, which obviated the difficulty; but since the tone appears to be so very superficial, I question whether the results are permanent. Great care must be taken in keeping a sufficient depth of the toning solution over the print, or its action is very uneven.

The three prints I enclose were treated as described above; they are rough, but will, I think, show that a considerable range of colour can be procured by this method, though, to my mind, the original grey is infinitely preferable. Nos. 1 and 2 are upon the Ilford, and No. 3 on Morgan and Kidd's paper.

The formula, as I stated, is that given by the Eastman Company for their transferotype paper. By referring to their instructions Mr. Wain may find some few further details which may be of use.—Yours, etc.,  
September 15th, 1890.  
PERCY MORRIS.

NOTE.—We have the three prints, and shall be pleased to send them to any correspondent for inspection on receipt of stamped addressed envelope.—Ed.  
AM: PHOT:

\* \* \* \*

### TONING LANTERN SLIDES.

SIR.—I think "Jan" has undertaken "by devious means" a task, in criticising my remarks on toning slides, for which he is scarcely qualified, seeing that he admits that he is not a worker in lantern slides, and moreover, can scarcely have had an opportunity of inspecting my slides.

I need scarcely inform him that I am not one to lavish more valuable time than needed, if the object can be attained by shorter means, but I venture to think that the delicate tones which I have obtained, and which are peculiarly suitable to architectural work, can hardly be produced with Alpha plates.

I will admit that, theoretically, bleaching with mercury may conduce to less permanence, but the slides I showed at the Liverpool Photographic Society's meetings have been made fully a year, and have been exposed at the Society's rooms for over a month in brilliant sunshine without deterioration. I fancy that, as with ordinary intensification, the permanence depends greatly on thorough washing.

I am far from saying that I prefer toned slides for all subjects. I do not, but I have used them for some of my pictures of the

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot: Soc: of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
Edinburgh Phot: Soc: ... ..	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Phot: Soc: of India ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor... ..	Ventnor.	Jan. —.	—	J. G. Livesay, Cromartie House, Ventnor.
Liverpool Am: Phot: Assoc: ... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Vienna Club of Am: Phot: ... ..	Vienna.	Apl. 30.	May 31.	Carl Srna, VII., Stiftgasse 1, Vienna.

\* English and European exhibits should be despatched not later than Oct. 1st. Mr. J. S. Gladstone, Woolton Vale, Liverpool, will give further particulars.



Alhambra taken last year at Granada, and they almost exactly reproduce the golden brown interiors and creamy traceries of that "fairy palace of the Moorish king."

I am ever ready to learn; and shall be delighted to welcome any new departure, artistic, practical, or theoretical, that may be put forward by "Jan."—Yours truly, W. PRIOR CHRISTIAN.

## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 187.)

THE pressure which the air exerts at any given moment is measured by an instrument called a *barometer*.

EXPERIMENT 54.—Take a glass tube about 6 mm. ( $\frac{1}{4}$  inch) diameter, and 800 mm. (32 inches) long, seal it up at one end, and fill it with pure mercury to within a short distance of the open end. Now place your thumb firmly on the open end, and, by inclining the tube, make the bubble of air which is left in pass slowly up and down the tube until it has swept out all the small bubbles of air which remain between the mercury and the glass. Finally, pour a little more mercury into the tube until it is quite full, place your thumb on the open end and bring it under some mercury in a small mortar or other strong vessel. Remove your thumb and gradually bring the tube to a vertical position. You will observe that the mercury does not fall out of the tube, but falls a short distance, so that the top of the column of mercury in the tube is about 760 mm. (30 inches) above the surface of the mercury in the lower vessel. The space above the mercury in the tube is quite empty, except for a trace of mercury vapour. It is known as the *Torricellian vacuum*.

If you fix the tube in its vertical position, and observe the height of the mercury from time to time during, say, a week, you will observe that the column in the tube does not always stand at the same height, although, as a rule, the variations are not great. The mercury is kept in the tube by the pressure of the air, and the variations in the height of the mercury column, or, in other words, in the weight of the mercury in the tube, show that the pressure of the air varies from time to time. The height of the mercury in the tube is directly proportional to the pressure of the air, and the variations in the height enable us to measure the variations of pressure. If on one day the mercury stands at 760 mm., and on another at 750 mm., the pressure on the second day is  $\frac{75}{76}$  of the pressure on the first day. The height of the mercury column is always measured *vertically from the surface of the mercury in the trough*.

For many purposes it is necessary to select a particular pressure as a standard pressure; the pressure equal to a mercury column 760 mm. high is taken as *the standard pressure*, and it is also often spoken of as a pressure of one atmosphere. The atmospheric pressure, as already stated, is equal to 1,033.3 grammes on a square centimetre, or 14.70 lbs. on a square inch.

The height to which the mercury stands in the tube is practically independent of the diameter of the tube, because although the weight of mercury which a tube will hold increases with its diameter, the area of the bottom of the tube on which the air presses increases in the same proportion.

The experiment just described is the construction of a barometer in its simplest form. In making a barometer for actual use, special pains are taken to thoroughly dry the tube and the mercury and to make sure that all air and moisture are expelled from the tube. A complete instrument is also provided with adjustable scales for measuring the height of the column, and a device for adjusting the height of the mercury in the reservoir or trough at the bottom. The essential part of the apparatus, however, is

the tube filled with mercury and with a Torricellian vacuum at the top.

The pressure of the air varies with the temperature, its degree of dryness, the time of year, and other causes. It is always greatest at the sea level, other conditions being equal, and decreases the higher we rise above that level, because we are leaving below us part (and the most compressed or densest part) of the atmosphere. The atmospheric pressure on the top of a mountain is always considerably less than in the valley beneath.

We have already learnt something as to the composition of the atmosphere. We have found that it consists to a large extent of nitrogen (Experiments 33 and 34), and we have also evidence that it contains oxygen; we can remove the oxygen by means of copper (Experiment 34), and afterwards convert it into water (Experiment 49), which we know to be a compound of hydrogen and oxygen. Moreover, most substances when they burn in air form the same products as when they burn in oxygen.

EXPERIMENT 55.—Burn sulphur and magnesium separately in bottles of air, and compare the properties of the substances formed with those formed when sulphur and magnesium are burned in oxygen (Experiment 31 *b* and *d*). Observe also that combustion is much less energetic than when oxygen is used.

In Experiment 33 we found that, roughly speaking, the air consists of four parts of nitrogen and one part of oxygen by volume, but accurate experiments show that after everything but oxygen and nitrogen have been removed from it, the air in the country or over the sea, where it is purest, contains in 100 volumes 20.95 volumes of oxygen and 79.05 of nitrogen. We may take the numbers 21 and 79 respectively as being sufficiently accurate for ordinary calculations.

The method by which these proportions are ascertained is based upon two facts, namely, that when a mixture of air and hydrogen is ignited, the hydrogen combines with the oxygen of the air to form water, which soon condenses to a liquid occupying almost no volume at all as compared with the volume of the original gases; and that two volumes of hydrogen combine with one volume of oxygen. A quantity of air carefully freed from everything but oxygen and nitrogen is very accurately measured in a special apparatus. A volume of pure hydrogen equal to more than two-fifths of the volume of the air (more hydrogen, that is, than is required to combine with the oxygen), and the mixture of hydrogen and air is carefully measured. An electric spark is passed into the mixture, the oxygen combines with hydrogen to form water, and after the apparatus has cooled, the water, now liquid, occupies so little space that it may be neglected. There is now left in the apparatus the nitrogen of the air and the excess of hydrogen. The volume of the gas after combination is less than it was before by the volume of the oxygen and hydrogen which have combined to form water. Now, since we know that two volumes of hydrogen combine with one of oxygen, it follows that one-third of the contraction or decrease in volume which follows the explosion caused by the spark, gives us the amount of oxygen present in the air that we started with. Very many experiments made in this way have led to the result already stated.

The proportions of oxygen and nitrogen are not absolutely constant, but the variations are not great. The proportion of oxygen is highest in the country and over the sea; it is lowest in towns, especially in crowded places, over marshy districts, and in coal mines, because, as we shall learn later, causes are there at work tending to remove oxygen. In summer, too, the proportion of oxygen is higher than in winter.

(To be continued.)



## Photographing in Iceland.

### V.—THE ROUND TRIP IN DETAIL.

BUT in spite of all the flattering reports of easy riding, etc., in the future, our journey from the Sandholaferja Farm to the foot of Hecla was a tough job. When we turned out of bed the prospect was anything but inviting. The air was cold, and we were threatened with rain. However, we called on our patriotic pride and pluck, and 11.15 saw us in the saddle, our spirits being good and our enthusiasm quite as unbounded as the circumstances warranted.

We began at once to ford the Randilekur River—Red River—which we had to cross some twenty-one times in all. This was an experience in aquatics which none of our party will ever forget. It is an exhilarating and novel business, no doubt, but it is damp, awfully damp. Our leader—who, by the way, never missed a single opportunity for a shot—went on ahead to get a picture of our cavalcade galloping through the water. This study, I believe, has come out splendidly—as it ought. If our party had splashed through that river for nothing we should have been as mad as March hares. Our chief guide himself presumably got tired of this fording and refording of the Red River; in fact, after the first two or three times the novelty palled on the whole of our company; so we struck out for a short cross-cut, which landed us into an enormous stretch of bog land and in which we spluttered, foundered, and lost our bearings in a most delightfully entertaining way. Two of us—our chief guide for one—were unhorsed in this bog, getting at one and the same time a delicious mud bath and an excellent opportunity of using forcible Saxon or Icelandic, according to taste and nationality.

When at last we got clear of the bog we struck across a desert of volcanic ash, over which stones, lava blocks, clinkers, and cinders were plentifully, if not artistically, distributed. Our second state was, therefore, worse than our first. For riding is not made easier when one's pony at every other step stumbles and reels; neither is the pleasure of riding increased when the exercise is accompanied by clouds of dust of a villarously oppressive nature.

We arrived at the base of Hecla at 8.30, having ridden thirty-three miles in the day, this being our longest ride. It did not take long to pitch our camp, nor did we need asking twice to come to dinner. Galtarlockr Farm, where we camped, is nicely situated—eruptions of Hecla barred, of course. We were located on a mound overlooking one of the rivers which flow at the foot of Hecla, and which at this spot has two picturesque falls. It is quite enchanting. As we sit or lie at ease, "blowing our 'bacca," we can hear the plash, plash of the falling water, the trickling of the stream, and the swish of the river flowing below us away beyond the huge lava bed. We can shut our eyes, and as the soothing lullaby of the waters reaches our ears, can fancy we are in one of the pretty pastoral glens of England. This is nice, very, very nice. But when we open our eyes and see black Hecla towering 5,200 or 5,300 feet in the blue, we are brought back sharply to the solid fact that we're in Iceland, and no nonsense about it.

What a splendid dinner we had the night we came up with Hecla! And how magnificently it was cooked by one of our travelling companions! We voted him the best cook living, and entreated him if ever he was changing his vocation to let us know, and we would run him in as *chef* in some grand hotel. How this gentleman cooked at all in the kitchens of the Icelandic farm-houses is a mystery. With the compartment quite filled with smoke, and the cooking utensils of the most primitive and crude character imaginable, he simply did miracles. Whenever he emerged from the kitchens he was as black and greasy as a stoker on a steamboat. If we had had the power we would have

knighted him; as it was, we did the next best thing—wished we could knight him. And how we slept that night too! Nothing short of a very audible rumbling of the mountain could have disturbed us—at least, so we thought. Two or three hours subsequently our medical man had a patient, the sufferer taking ill suddenly, and being "invalided" for a day or two afterwards. Happily, he pulled round all right, and we were again a merry party.

It was a very hot, sultry day when our camera men and our artist got to work at and about Hecla. There were flies without end—a very plague of them; a species of small horse fly, malignantly vicious and commendably impartial and industrious. They raised a blister at every bite, and if you succeeded in killing one of them, his sorrowing friends and relatives came to the obsequies in innumerable companies. This may show a good trait in the character of these particular flies, and it may be respectful to the memory of the deceased, but it's maddening to humanity. Our artist sketched amid clouds of these flies, his head tied in a towel, and his face thickly coated with vaseline. But then he was a man of moral courage, as I think I have already stated in these notes. He was about the only man in the party who escaped temporary disfigurement during the fly plague. A veracious camera man in the party said that he was sure he had gained half a stone in weight owing to the plague, the flies had raised so many blisters on him. Flies abound near all rivers in Iceland; they're an experience in themselves.

And now I come to one of the most important incidents of the Lange expedition to Iceland. Our leader was determined to climb Hecla and bring down the crater—on glass, of course—at any cost. In fact, we had all made up our minds to do the ascent, but when it came to the starting time, toothache, headache, and other aches kept all the party but three and Gudmundsen "at home." The intrepid quartette went away blithely at about ten o'clock a.m. Like wise men, they laid in a good breakfast, and well they did. It was eight o'clock at night before they had another morsel to eat, they having in the meantime climbed over 5,000 feet and come down again. The weather all day was propitious, giving every chance of a favourable ascent and a clear atmosphere at the summit. After riding for two hours, gradually ascending to about 2,000 feet, and passing through fantastic and diabolical lava beds, a spot was reached beyond which the ponies could not travel, and where a special guide took charge of the animals until the descent. From this point we trudged across fields of ice and snow on foot, our undertaking looming very big when we considered that we had over 3,000 feet of this kind of thing to accomplish. The danger of the ascent—slips in the ice and snow, and the probability of getting lost excluded—is but trifling. The lava ejected during the eruptions has completely filled all fissures, chasms, and ravines. But it is not so much the danger of the ascent of Hecla as the fatigue which need be dwelt upon. We were obliged to halt frequently, and to make the journey in short stages. There is no road up the mountain; that is, no beaten track; the ice and snow, continually rolling, obliterate all traces of path and track. Consequently we were careful to put our guide in the front, and tread in his footprints. It was dreadful work climbing with a camera, as our leader found out, Gudmundsen also assisting in this labour. When we reached the apex of the mountain, having been about seven hours' making the climb, it was regretfully discovered that there was only one small flask of whisky among us. How that "dhrop of the raleould crathur" was relished on the edge of the crater! Whisky never tasted so finely or so mellow. The panorama and other impressions on the top of Hecla I must leave over to my next article.



## Photographic Optics.

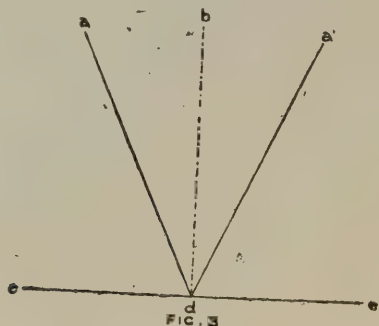
By C. J. LEAPER, F.C.S.

(Continued from page 168.)

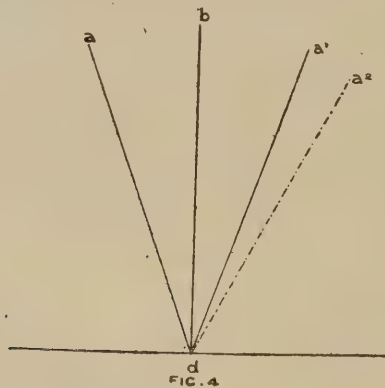
### CHAPTER II.

*Reflection of Light—Halation and its Cure—Refraction—Refractive Index—Prisms—Dispersion—Achromatism.*

WHENEVER a ray of light meets an obstacle it is split up into three portions. A residuum of the first portion is absorbed by the object, and the portion not absorbed gives the object its characteristic colour. The second portion is irregularly reflected or scattered in all directions, whilst the third portion is reflected regularly according to a very simple law, viz., in such a way as to make the angle of incidence equal to the angle of reflection.



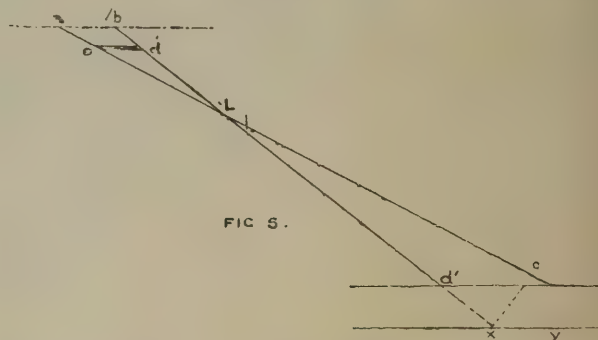
In the figure let  $cde$  represent a highly-polished plane or flat surface. Then if a ray of light falls upon it in the direction  $ad$ , the angle  $adb$  obtained by dropping a perpendicular upon the surface  $cde$  is the angle of incidence, and the angle  $a'db$  that of reflection, the reflected ray taking such a direction ( $a'd$ ) as to make these angles equal. Ordinarily, however, the result is not quite so simple. Considering a piece of red velvet represented in the next figure as typical, the first portion of the ray of white light  $ad$  falling upon it is regularly reflected as at  $a'd$ , the second portion irregularly reflected as at  $a''d$ , and the third portion is decomposed by the material, the red being reflected and the other rays absorbed.



The regularly reflected light gives the image of the source of light, whilst the scattered or irregularly reflected light gives that of the object itself. It is the last which renders photography possible. An object such as a perfect mirror which reflects regularly only could not be itself photographed. On the attempt being made, the result would be merely a negative of whatever might be reflected in it.

The irregularly reflected light subdues to a great extent

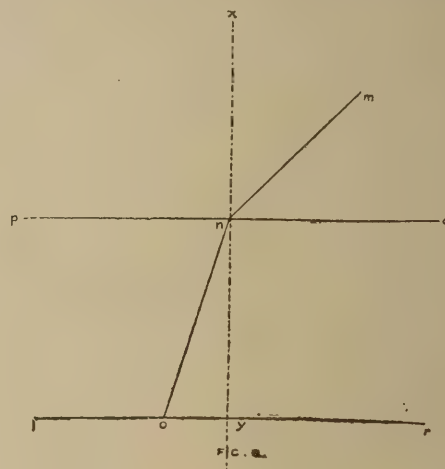
many harsh contrasts which would otherwise exist. If the red velvet, for instance, reflected a pure red light only, it would make no impression upon the photographic



plate, but because it *irregularly* reflects a great deal of white light it is possible to secure a negative of it.

Halation, or the blurring of the outline of a dark object photographed in front of a bright light, is the result of reflection. When a ray of white light reaches the sensitive plate, a portion of it enters the glass and is reflected from the back of it, and this impinging upon the other side of the film causes the impression of any dark object in the vicinity to be partially blotted out.

In fig. 5 let  $ab$  be a brightly illuminated window, in front



of which a dark object  $cd$  is placed to be photographed, and let the image of the latter, after passing through the lens at  $L$ , be received upon the sensitive plate  $d'c'xy$ , so as to form an image  $d'c'$ . A portion of the luminous ray  $m d'$  will enter the glass and be reflected from the back of it at  $x$ , taking the new direction  $x c'$ , and this luminous ray will evidently illuminate the inner portion of the edge of the dark object at  $c$ , and consequently render the outline indistinct at that point. Clearly the more obliquely the object is placed relatively to the ground-glass the more visible will the halation become. In the diagram the ray  $d'x$  is represented for simplicity as a continuation of the line  $a d$  although in reality this will not be the case.

This defect chiefly makes its appearance in photographing interiors with brightly illuminated windows. Luckily, there are several means of avoiding it almost entirely. We can, to begin with, render the back of the plate non-reflecting by coating it with lamp-black or some other pigment, which will reflect little or no light, or we can make use of a plate the back of which is finely ground.

Another plan is to use a *very thin* supporting medium, say gelatine or celluloid, in which case the rays reflected



from the back will have practically the same direction as those falling upon the front of the plate. The best method of all, however, consists in employing a coating of silver bromide in gelatine, sufficiently thick to absorb *all* the light and so permit none of it to reach the back of the plate.

Whenever a ray of light meets a medium which is not the same chemically and physically throughout, the ray is bent or refracted.

If, for instance, in the diagram (fig. 6)  $p n q$ ,  $l o r$  represents water, and the line  $m n$  a ray incident upon its surface; such a ray will on entering the water take the direction  $n o$ . The line  $x y$  drawn at right angles to the surface of the water is called the normal to the surface  $p q$ , at the point  $n$ , and the angle  $m n x$  is the angle of incidence,  $o n y$  being the angle, of refraction, in this case lesser than the angle of incidence.

Water being optically denser than air, the ray is bent towards the normal or perpendicular.

An angle is defined by Euclid as the opening between two lines, and the amount of opening can be measured by the number of degrees included between the lines, or by the ratio which one of the sides of the triangle containing the angle bears to the other.

A circle is arbitrarily divided into 360 parts or degrees, and an angle can be measured by ascertaining what fraction of the 360 degrees (written  $360^\circ$ ) it includes.

Thus in the next diagram (fig. 7) if  $x n m$  is the angle to be measured we have only to draw a circle with  $n$  as centre, and of such a radius as to include the lines forming the angle and divide its circumference into 360 parts. Then the number of degrees included between  $x m$  measures the angle.

But there is another way of arriving at the same result. If from  $m$  a line  $m y$  be drawn perpendicular to  $x n$ , it is clear that the ratio between this line and  $n m$  will always

remain constant for the same angle. This ratio  $\frac{m y}{n m}$  is called

the *sine* of the angle  $m n y$ . Now when a ray of light undergoes refraction, it is found that the ratio between the *sines* of the angles of incidence and refraction is a constant quantity, no matter what the angle of incidence may be.

In the figure let  $c n d$  represent the surface of a sheet of water, and let a ray  $m n$  be incident upon it. The angle  $m n y$  which this ray makes with the perpendicular will

have for its sine  $\frac{m y}{n m}$ , and the ray will by refraction take the new direction  $n a$ , making the angle  $a n b$ , the sine of which is  $\frac{a b}{a n}$ . The ratio  $\frac{n y}{n m}$  to  $\frac{a b}{a n}$  will be a constant quantity, and is

called the *index of refraction* of water. Clearly, since  $n m$  and  $n a$  are both radii of the circle, and consequently equal to each other, the ratio  $\frac{m y}{n m}$  to  $\frac{a b}{a n}$  is the same as the ratio  $\frac{m y}{a b}$ .

In this particular instance the ratio is  $\frac{3}{4}$ , meaning that if the line  $m y$  be divided into four parts, three of those parts should measure the line  $a b$ .

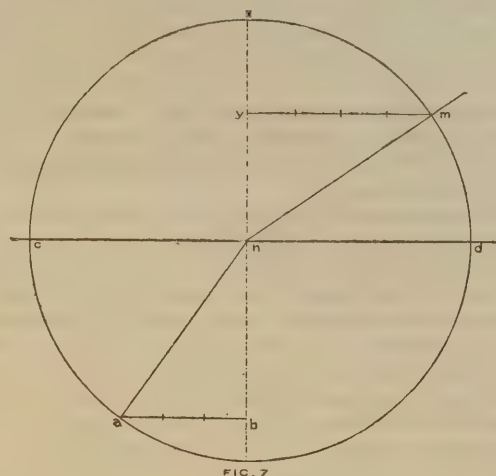
Instead of stating the refractive index as an improper fraction, we might denote it as a whole number and a decimal. Thus  $\frac{3}{4} = 1.3333\dots$ . And this is the method usually pursued.

Different substances possess different refractive indices, as the subjoined table will show:

Diamond .. .. .	2.44 to 2.75
Flint glass .. .. .	1.57 to 1.64
Crown glass .. .. .	1.53 to 1.56
Rock salt .. .. .	1.55
Canada balsam .. .. .	1.54
Water .. .. .	1.33
Air .. .. .	1.00

When a ray passes through a medium with parallel faces, it is clear that the emergent ray will be parallel to although not in the same direction as the incident one. For the amount of bending which the ray undergoes *towards* the perpendicular when entering the medium, must equal the amount of bending which it experiences *from* the perpendicular when leaving it.

If, however, the faces of the medium be not parallel, the ray will be bent in quite another way. A medium, shaped so as to have two faces making an angle with each other, is



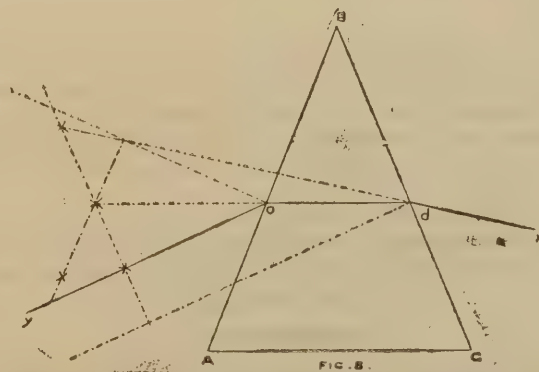
spoken of as a prism, and the path of a ray through it can be deduced at once from first principles.

Let such a prism of, say, crown glass with a refractive index of  $1.5 = \frac{3}{2}$  be represented by  $A B C$  (fig. 8), and let a ray of light,  $y o$ , be incident upon the face  $A B$ . Then this ray will upon refraction take, in the prism, the direction  $o d$ , but upon reaching the edge  $A B$  it will be again refracted, taking the new direction  $d x$ .

This would be strictly true only when monochromatic light, or light of one degree of refrangibility only, is employed.

We already know that with white light the emergent ray will really consist of the seven so-called primary colours, refraction, being, in fact, accompanied by dispersion.

A prism, to be a prism, must bend a ray of light passing



through it, and if it does so without, in the case of white light, dispersing it as well, it is said to be achromatic.

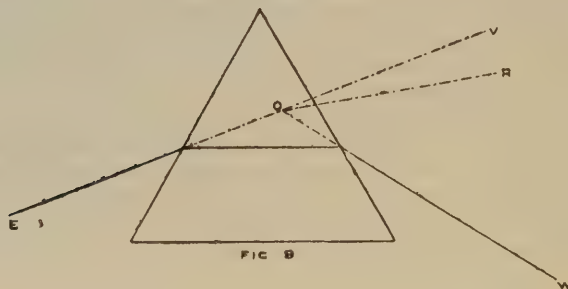
It is evident that by placing two prisms of the same material and of equal angles together, but turned the opposite way, the dispersion produced by the one will exactly counterbalance that produced by the other, but the arrangement will merely act like a medium with parallel faces, *i.e.* the emergent ray will not be bent relatively to the incident one. But since different materials possess different refrac-



tive indices, it is possible to make prisms of different materials, and with different angles, which shall when placed together compensate each other so far as achromatism is concerned, and yet bend a ray of light.

Thus a crown-glass prism with an angle of  $60^\circ$  will produce the same dispersion, or will, roughly speaking, give a spectrum of the same length, as one of flint glass having an angle of  $37^\circ$ , provided that in both cases the screen receiving the spectrum is at the same distance. The average amount of bending or deviation caused by the first prism can be readily found by construction to be about  $40^\circ$ , whilst with the second the deviation will be only  $25^\circ$ . Hence the deviation produced by both prisms used with their angles turned the opposite way is  $40^\circ - 25^\circ = 15^\circ$ , but since their dispersive powers are the same, a ray of white light passing through such a compound prism will be bent  $15^\circ$  without being practically dispersed at all. Such a compound prism is said to be achromatic.

To put this matter in more precise language, we may say achromatism is possible because the refracting power or deviation of a material does not vary in the same ratio as its dispersive power. The former is, in the case of a prism, measured by the angle which the ray itself makes with the prolongation of the direction in which it is bent. Thus in the diagram the eye placed at E will see the ray of *monochromatic* light W O, as if it proceeded along O V. The angle V O W measures the deviation. The dispersive power, or simply the dispersion, of a prism is the angle included between any two rays, say, the red and the violet. Thus, in the preceding diagram, if a ray of *white* light proceeds from W, the eye will see a spectrum at V R, the violet being at V, and the red at R. The angle V O R measures the dispersion.



Both the deviation and dispersion of substances increase the higher the index of refraction, but as dispersion increases more than deviation, achromatism becomes a possibility. Had they both increased at the same rate, it would be impossible to bend a ray of light without at the same time decomposing it.

We must, however, remember that we can render a prism achromatic so far only as any two particular rays are concerned, all the intermediate ones still suffering dispersion.

(To be continued.)



MESSRS. PERCY LUND AND CO. have considerably extended their factory at Bradford by adding to it the adjoining building, No. 18, St. John's Street. The alterations and partial reconstruction, which are almost completed, will provide for additional plant and staff in the printing, book-binding, and box-making departments. We understand that the new building will provide extra warehouse room, and also a sample-room and sale-room for general goods, a show-room for backgrounds and accessories, private and editorial offices, and laboratory. The absence of show-rooms and a retail department has always been felt to be a great disadvantage.

## Photographic Apparatus.

BY THOMAS L. BUCK.

*First Prize—Competitive Paper.*

THE apparatus necessary to commence photography are a camera, dark slide, lens, and tripod or stand. In the selection of these great care is requisite, if satisfactory results are hoped for.

Cameras are made of various sizes, a very generally useful size being half-plate, for pictures  $6\frac{1}{2}$  ins. by  $4\frac{1}{4}$  ins., though a great deal depends upon the individual fancy and purse of the buyer.

A camera, to be worthy of such a name, should be light-proof, rigid, have all *useful* movements, and should be simple and portable. To ascertain how far a camera fulfils these points, I would recommend the following tests. In regard to its being light-proof, place a rapid plate in dark slide, place slide in camera, withdraw shutter of slide, rack out bellows fully, and leave camera out in bright light uncovered for half an hour; of course lens must be in position and carefully capped. Afterwards develop plate, and fix it. If camera is light-proof, plate will come out clear glass.

As to rigidity. That a camera should be rigid is obvious, seeing that the slightest movement thereof during an exposure causes a blurred image, or, in other words, a hopelessly spoiled plate; the tongue and groove of the sliding portion of baseboard that carries the bellows front should fit tightly and evenly, yet should readily respond to the racking screw. Mount camera on stand, rack out bellows fully, and then with the tip of a finger strike the front of lens in a vertical direction, and watch for any movement. If such movement is very apparent, reject the instrument.

As regards movements. That it should have rack and pinion extension goes without saying, also a double swing-back; one in which the forward and backward swing of camera back works from the centre of such back is to be preferred. A great many camera backs are hinged or fastened to baseboard at bottom, and back swing works from bottom. Such cameras may do for general run of work, but are not perfect. If the camera back be so arranged that it will slide forward so as to enable it to be used with a wide-angle lens, without front of the baseboard cutting off part of the foreground, so much the better; in fact, for a person who wants to use camera often with such a lens, for architecture, interiors, etc., such movement is an absolute necessity. Many camera fronts draw out and are fastened in position by two milled-headed screws; these ought to be supplemented with two side stays if absolute rigidity be desired, especially for shutter work. A reversing frame with hinged focussing screen is another requisite addition, as is also a rising and falling front. Horizontally sliding fronts I object to; far better turn camera bodily on stand in required direction. Turntables are an improvement if well made, but not worth the extra price often charged, if money be an object.

Avoid cameras full of complications and "warranted to contain every movement." Such often have more movements than you bargain for. Look for simplicity.

A camera that will fold up in a portable form, quickly and easily, is certainly one to be esteemed. This can be realised if you have a view to take, a mile to go, and only a quarter of an hour to catch a train.

Another very important point is to see that dark slides are light-proof. This can easily be ascertained by placing a rapid plate in slide, and placing outdoors in bright sunlight for about ten minutes, afterwards develop plate and fix, and see if any trace of fog. Dark slides opening in book form are generally used, but I prefer those of solid form



as being stronger less liable to leakage of light, and yet quite as handy as those of book form. Patent fasteners to shutters are much better than usual bent wire arrangement, which is risky at best. Extra cost is very slight. Metal slides are strong and serviceable for rough usage.

Now as to the lens: The cheapest forms are those of the ordinary meniscus view type—as a rule, poor or moderate in definition, and very slow, comparatively speaking. The most useful type, in my opinion, is the rapid rectilinear—in fact, the lens for a one-lens man, one the focus of which is about one and a half times the longer way of the plate, generally including best angle, *i.e.*,  $8\frac{1}{2}$  or 9 ins. focus for half-plate camera.

Wide-angle lenses are useful for use in confined situations, such as interiors, etc., but distort perspective so much, they should be discarded for any other use. Portrait lenses, working as they do at a large aperture, are eminently suited for portraiture on account of their speed, but are not suitable for any other use, on account of their shallow depth of focus. A good rectilinear or rectigraph (two terms of same meaning) is far the most useful lens, and an investment paying capital interest. Landscape lenses by good makers are not to be beaten for purely landscape use.

Tripods should be strong, rigid, and portable, and should have a large head without outside projections, which are a nuisance. Ashford's is a capital stand.

*Shutters.*—If a beginner, leave them alone for a year; if not, there are plenty of good makes in the market. For general use, do not get one *too fast*, or plate bill will grow fast too. Tylar's go-and-return shutter, at two shillings, I find works splendidly, and is sound in theory, giving most exposure to foreground. I prefer it to any I use at five times the price, unless it be a flap-shutter. Those working at high speeds serve a purpose. There are also some excellent time and instantaneous shutters in the market.

View-finders will be found most useful articles. I prefer the Aptus, which I always carry in my vest pocket, held within an inch of the eye. The picture that would appear upon the plate is focussed beautifully clear and sharp; can be attached to a camera in a second, when required to watch moving objects, for instantaneous shots.

Foregoing remarks are founded purely upon experience of writer.



## Our Contemporaries at Home and Abroad.

THE *Journal* of the Society of Amateur Photographers of New York contains a paper by Mr. F. C. Beach, on "Lantern Slides and Lantern Slide Making," from which we extract the following:—"We now come to a new developer which will supersede all others for lantern-slide making, as it gives to the film a blueish black tone very similar to the palladium or platinum tone usually given to wet plate sides. I refer to 'eikonogen.' The proportions recommended are:

Sulphite of soda .. .. .	10 gr.
Eikonogen .. .. .	5 "
Carbonate of potash .. .. .	2 "
Water .. .. .	1 oz.

A developer thus made will develop rapidly from seven to ten slides in succession, each of which will be absolutely clear glass in the high lights, and have in the shadows a density so delicate that the light of the optical lantern will bring out in fine relief all the details. The slides possess a richness in crispness and sparkle that is seldom seen in wet plates. The rapidity of the action of the developer may be retarded by adding a few drops of a ten grains to the ounce solution of bromide of potassium. After the slides are washed in changing water for half an hour, they should be rubbed off with absorbent cotton to remove any floating particles that may have become attached to the surface

and then set up to dry." There are also papers by Miss Catherine Weed Barnes and Dr. L. H. Landy.

THE *Photographic Herald and Sportsman* (New York) gives the following:—"The prints, as soon as they are removed from the washing water, are hung up to drain; then, upon a sheet of pasteboard—no wooden board should be used, because the prints would most likely obtain brownish-yellow stains—a layer of blotting-paper is placed, upon this a single layer of prints, surface downwards, then again blotting-paper, prints, and so on, until all the pictures are placed. After about one hour, or when the blotting-paper has absorbed as much moisture as it is able to do, the prints are repacked, the wet blotting-paper being thereby replaced by dry. This time several packages are made of the former single one, in order to accelerate the drying. The packages should be loaded a little, not, however, too much, as the drying would then be delayed; it is best simply to put a sheet of cardboard on the package. If this is done in the evening, the prints will be tolerably dry the next morning. The blotting-paper is then once more replaced if it seems necessary. The next morning the prints will be sufficiently dry to be laid aside. By this treatment the prints after drying will remain perfectly flat without further trouble, and are now in nice condition for being carefully trimmed." Articles: "Ethics of Photography," "Colour Blending," "Eikonogen," "Mottlings," "Bromide Enlarging," "Intensifier," "Bits of Advice," etc.

*Wilson's Photographic Magazine* (New York), in an article by John A. Tennant on "Portraiture," says:—"In posing, the photographer should educate himself to appreciate the balancing power of lines, in order to obtain a pleasing contour whether of the figure or simply the bust. He should also be able to dispose his subject so that the light shall help to form an easy and natural composition, in which the shadows each have their proper place and value, so as to make prominent all the most desirable characteristics of the sitter; and he should also be able to choose the most favourable view of the subject. Here the art of selection plays an important part; to know what to put in strong relief, and what to subordinate, is essential in portraiture more than in most other things. Harmony or contrast, each in their proper places, are also desirable, both as to line and form. There should also be an element of suggestiveness in the pose chosen: always leave something untold in your work, so that the imagination of the spectator may be stimulated into interest. The portrait which conceals nothing soon becomes 'flat, stale, and unprofitable,' and cannot long command the interest of anyone. . . . To come down to detail, the artist should be careful that the face is made the principal point of interest in the composition, whatever length of figure be required. Pose the head easily, so that it is really supported by the shoulders, and see that the wavy lines of the hair do not interfere with the general balance of the contour. There are certain variations of form and line which will be evident to the artist as he goes along; for instance, the opposing of the lines of the head and face to those of the body, in portraits of young people, will give the idea of strength and force of character. Almost every face has its best side; ascertain which it is, so that you may make the most of your subject. In posing full-length figures the chief aim should be to preserve easiness and avoid the appearance of constraint or stiffness. With lady sitters the pose should express gracefulness, in men dignity and repose. Save in exceptional cases the appearance of levity will ruin almost any portrait. Ladies photograph well in any careful pose if suitably attired, but men are difficult subjects and require considerable tact in handling. The hands need very careful treatment, both in men and women; apart from beauty of line, however, their disposition is chiefly determined by the lighting of the figure, or the position of the principal light." Articles: "Outdoor Summer Groups," "Why they do not Compete," "Asphaltum," "Photography in Natural Colours," "How to Handle the Little Ones," "Practical Points," etc.

The *Photographer* (Cincinnati) gives the following: "We often find a clear spot on the negative, or some defect of figure of such proportions that we cannot touch it out with the pencil or Indian ink, so that it will not show on the print. Such white spots on the print may be discoloured by light, applied by a species of double printing. By folding a piece of opaque paper so that it will entirely cover the print, but with the ends open, and the wrapper somewhat larger than the print, a hole may then be cut in this wrapper at about where the white would



come when the print is enclosed—the opening to be cut as near the shape of the spot as possible. Placing the print within the wrapper, so that all parts are protected from the light excepting where the opening is made, the print may be moved from the open ends until the white spot is at the opening, and by exposing this to subdued light it will gradually assume the shade desired. Upon occasional inspection to note progress, it may be found necessary to move the print a little, so that all portions of the spot receive a fair share of light, and even discolouration." Articles: "The Washington Convention," "A New Flashlight," "Lighting," "Chataqua School of Photography," "Suggestions by a Photographer," "How they were Photographed," etc.

The *Photographic Times* (New York) gives the following formula for background paint:—

"Starch .. .. .	4 oz.
Water .. .. .	12 "

Boil the above well, till it thickens. Then with a stiff brush cover the calico which has been stretched upon a frame, the corners braced with cross pieces to keep the frame in proper shape. After the starch has been applied, the following makes an excellent colouring:

Common whiting .. .. .	15 oz.
Powdered glue .. .. .	5 "
Treacle .. .. .	8 "
Water .. .. .	3 qt.

When thoroughly mixed add

Lampblack .. .. .	1 1/4 oz.
Ultramarine .. .. .	3/4 "
Venetian red .. .. .	1/4 "

Put in the fire until hot, brush over the calico carefully with a broad flat brush (white-wash brush.) Articles: "A Photographic Trip in the Torrid Zone," "Enlarging," "Types of Beauty," "Developing," "Retouching," "The Automatic Operation of Photographic Apparatus," etc.

*Anthony's Photographic Bulletin* (New York) says, "Dr. R. S. Liesegang recently published a new and interesting method of intensifying negatives by which no damage is done to the negative, as is often the case. His process is, first, to varnish the negative in the usual way, after which he again coats it with collodion or varnish, in which has been previously dissolved red or green colouring matter of an aniline nature, which is sensitive to light. On exposure to direct light, through the negative, the clear parts are bleached out, while the half tones and blacks change only in proportion to the density of the different parts. The principal objection to be urged to this method arises from the fact that the aniline colours will gradually fade as prints are made from the negatives so treated, and the process then has to be repeated; but Dr. Liesegang suggests that some of the iron salts, such as are employed in the making of the ferro-prussiate paper, may overcome this difficulty. If such salts were used, however, the negatives would have to be re-developed." Articles: "The Daguerre Convention," "All Skylight and no Roof," "Comparison of Developers most Generally Used," "Post-mortem Photography," etc.

*L'Amateur Photographe* (Paris), speaking of a new intensifier, the invention of MM. Levavasseur and Poisson, says:—"Where is the amateur who has not yet found the necessity arise for intensifying a feeble negative? Generally, for that purpose two liquids are necessary; with the intensifier spoken of, one is sufficient, and the result leaves nothing to be desired. It is indispensable for instantaneous exposures made under unfavourable conditions, and where the developer brings out but feebly certain of the details. However feeble be the negative, it becomes, after a few minutes' immersion in that bath, of an intensity and fineness equalling that of the best negatives; it is then a precious product which the amateur cannot dispense with in his laboratory. The operation is performed in broad daylight, and it is easy to stop the action at any moment; all that is necessary is to wash the negative and put it to dry. If the intensification be pushed too far, the plate should be placed in a bath of hyposulphite (5 per cent.), and the operation of intensification recommenced." Articles: "Photography and its Industrial Application," "Photography for the Use of Amateurs," "On a Process of Obtaining Microphotographs for Projection," etc.

*Beauty's Queens* (Fleet Street) is, we notice, offering prizes for the best photographs by amateurs of beautiful women. It is, perhaps, unfortunate that the prizes should be offered in money, as otherwise the competition would doubtless be keen, the subject being beautiful women.

## Science Notes.

THE Leeds meeting of the British Association was considered, from the attendance point of view, anything but a success, only 1,700 members being present. The fact is that these annual meetings, or "conventions," are about "played out."

Two grants for photographic purposes were made at the close of the meeting; one of £10 for the collection of photographs illustrating geological subjects, and the other of £10 for photographs of meteorological phenomena. Professor Meldola acts as Secretary for the former, and Mr. John Hopkinson for the latter subject.

The report of the Committee on geological photographs for the past year mentioned that 196 had been obtained, and alluded to the photographic survey of Warwickshire, as proposed by Mr. Jerome Harrison, as being likely to aid in the work. Three photographs of remarkable boulders discovered and photographed by Mr. Harrison in South Warwickshire were exhibited by Dr. Crosskey before the geological section, as illustration of the work of the Committee on Erratic Blocks, which has for many years been collecting data of this kind all over Great Britain.

An important paper was read before the chemical section by Mr. Green, on the "Photographic Applications of Primuline," a new coal-tar dye. Paper, linen, etc., coated with this substance readily gives prints in various tones of red, yellow, or purple. A drawback appears to be that a white ground cannot be obtained.

The *Philosophical Magazine* for September contains an admirable paper by a former teacher of mine—Professor C. V. Boys—entitled "Notes on Photographs of Rapidly Moving Objects, and on the Oscillating Electric Spark." Mr. Boys' method cannot be given here, but his picture showing the formation, fall, and rebound of a drop of water should be seen by every one. The photographs were taken at the rate of twenty per second; but it is stated that fifty per second could easily have been obtained.

Metallic aluminium has gone down in price to seven shillings per pound, as compared with twenty shillings last year, and sixty shillings the year before.

But possessors of lenses, cameras, etc., with aluminium mounts must store them in a dry place, or they may assume the condition depicted in the letter of a correspondent who writes to last week's *English Mechanic* as follows:—"Will any of 'ours' kindly inform me how to remove rust (or 'oxide') from a pair of valuable aluminium field glasses which have been laid in a damp cupboard so long that they are covered with a white, salt-looking substance, which simply refuses to leave the glasses without bringing away pieces of aluminium?"

Do those workers who complain of stained negatives, troubles in toning, etc., always use *boiled* distilled water? With this aid, clean dishes, and pure chemicals, many of the minor worries of photographic processes disappear. Ordinary distilled water is invariably more or less aerated; it falls, drop by drop, from the still, and in falling it dissolves and carries with it some of the oxygen of the air. This oxygen unites with the pyro of the developer to form dark-coloured compounds which stain the negative. To get rid of the dissolved air the distilled water should be boiled for at least half an hour in a thin glass flask, and the bottles in which it is stored should be kept *full*.

I may contribute my mite to the "green glass controversy" by saying that I have lately obtained, by the aid of a cover of "full green" glass, dark—*nearly* black—tones on a sample of matt-surface paper which no other method can persuade to yield anything beyond a reddish-purple tint. But the green glass prolongs the printing immensely. It took me two days nearly to get a print from a rather thin negative. No doubt the *slowness* of the printing contributes to the effect; but the main factor is probably that the green light produces a slightly different molecular aggregation of the silver; the molecules absorb the rays of light more equally, and this gives a black tone.

Having done a great deal of work during my holidays on a tricycle, I am in a position to state that the cycling trade is being revolutionised by the introduction of tyres either inflated with air (pneumatic), or simply hollow (cushion tyres). These reduce the vibration immensely, and increase the speed in a like ratio. From personal experience, I can state that it is easier to carry a whole-plate kit ten miles on a tricycle fitted with the latest improvements, than to do two miles with the traps on one's back and the aid of "Shanks's mare" only. Photography and cycling should now be more nearly allied than ever.

F. G. S.



## Holiday Resorts and Photographic Haunts.

### OXFORD TO KINGSTON,

ON SALTER'S STEAMER, THE "OXFORD."

An account, from an amateur photographer's point of view, of a trip from Oxford to Kingston on one of Salter's steamers will be of interest to many. These boats leave Oxford on Mondays, Wednesdays, and Fridays at 9.30 in the morning, and reach Henley at 7 o'clock in the evening, and Kingston at 7 the following evening. The boats themselves are extremely comfortable, and maintain a good pace. The men in charge are very civil, and willing to do all that lies in their power to assist the amateur photographer, as well as being perfect mines of information as to names of riverside residences, etc. There is a dark-room on board.

On leaving Oxford the first interesting spot we noticed was Nuneham Bridge and Cottage, where the captain kindly stopped the boat, and gave an opportunity to get a shot, which was fairly successful, though the light was rather too much. Passing through Day's Lock, Dorchester, opportunity occurred for a shot at the weir, which makes a good picture. From Day's Lock to Wallingford is not very interesting, and Wallingford itself, where we stopped for luncheon, is quite prosaic. Moulsoford Ferry would give a picture, and just above it there is a backwater which, with its feathery willows, tall reeds, and crowds of water lilies is well worth a plate. The weir at Cleve is very picturesque, and at the end of the short reach which follows it lie the twin villages of Goring and Streatley. The "Swan Inn," at Streatley, is worth taking; in fact, the view of the village, with its old church tower and background of wooded hills, is one of the loveliest to be found on the whole river. At Pangbourne a cottage on the edge of the river forms a pretty picture, also the church and mill at Whitechurch. Just above Mapledurham there is a very fine mansion, Hardwicke Hall, which comes out well in a photograph. Below the lock there is a very pretty reach, which it is wise to make the most of, as from Tilehurst down past Caversham and Reading, until you get to Sonning, the river is absolutely void of scenery such as the photographer loves to depict. Sonning itself is pretty, and is worth a plate; after it come Shiplake, with its famous backwater, and then Wargrave and Henley. Here there is a good deal of scope for the photographer, but as the boat starts at 9.50, he must be up betimes.

Henley left behind, we soon pass Regatta Island, and come to the celebrated Medmenham Abbey, where the captain stopped, and afforded us an opportunity to take a photograph of the abbey which makes a very pretty picture. Soon afterwards we pass Bisham Abbey, which is, if possible, even lovelier than Medmenham. At Marlow there is an excellent view of the church, either from Bisham Reach or from the lock and the suspension bridge. Passing on, we come to Cookham Lock, and the lovely Clevedon Woods. Then comes Boulter's, which is one of the busiest locks on the Thames. Here we were able to get a shot at a launch and several boats just leaving the lock. The house-boats, too, just here are numerous, and look very pretty, almost smothered as they are in flowers. Then follows a long stretch, where the river flows through flat meadows, with no special interest for the photographer, until we reach Windsor, where we stop for luncheon, and so have time to get a photograph of the Castle. Starting again, we get a fair view of Eton College, and then, passing Magna Charta Island, we come to Egham, with its beautiful weir; then through Staines and the ancient town of Chertsey to Sunbury, which, in my opinion, is by far the prettiest lock on the Thames; also, just below the lock, we get a view of the village, which is very picturesque. Then comes Hampton, where we left the boat, as it was quite dark.

The boats continue running until the first Saturday in October, so there is still time for anyone so inclined to get a very pleasant two days' holiday, combined with capital facilities for photography.

"PHOTOGRAPHIC REPORTER."—The Secretary of an important society writes, "By the way, the *Reporter* must have had a big sale here; a lot of our members had it last evening. The *Reporter* is a very great advance on the former production."

## North Middlesex Photographic Club.

A MEETING was held on the 8th inst., Mr. Humphries in the chair. After the usual preliminaries had been disposed of, the Secretary read the following interesting paper, which had been contributed, on

### COLLOTYPE PLATEMAKING.

He said: I do not wish to trespass on your valuable time with a long paper, but to give plain instructions, formulæ, and show results, so that any of you interested in photo-mechanical printing can go home and try it for yourselves, without being confused with unnecessary matter. The first thing is some good plate glass ground with emery, such as the piece here shown. It is very simple; I take two pieces, and put a little emery moistened with water between them, and rub them round and round till I get as fine a grain as possible, and then well wash and clean with spirits and ammonia, when they are ready for the first coating, which is made as follows:

Four ale or porter .. .. .	30 oz.
Silicate of soda .. .. .	3 "

This is carefully filtered, and a little poured on the plate and spread over with the palm of the hand. Then put in a rack or stand on blotting paper to drain. No heat is necessary. They ought to be done overnight ready for next day, when, after a good washing under the tap, at the same time rubbing with a soft sponge, and again dried, they are ready for the second coating, which I make as follows:

Coignet's gelatine .. .. .	5 oz.
Nelson's sheet gelatine .. .. .	2 "

Soak in 80 oz. of water, then dissolve and add bichromate of ammonia 2 oz. dissolved in 10 oz. of water, to which has been added  $\frac{1}{2}$  oz. of liquid ammonia. The plates which have been previously described are carefully levelled in the drying oven, and the temperature raised to about 100 deg., when they are carefully coated with the second preparation just described, and dried at a temperature of 150 deg., when the gas or hot water is turned off and they are allowed to cool gradually. They ought not to be used till next day, and they will keep good for about one week; after that time they become insoluble. The plates at this stage should be like the one here shown. The next operation is to expose, under a reversed negative, either wet or dry plates, but I have never seen a dry-plate negative yet that can compare with a wet collodion one, although I have had nearly twenty-five years' experience. The exposure to light is difficult to describe. The best way is to use an actinometer, and give about the same time as you would for a silver print from the same negative, but a few trials will be of more service than a book full of instructions. After the plate is exposed sufficiently, take off the backing and expose the back to light for five or ten minutes, according to the subject. This helps to bind the film to the glass, and prevents too much relief. The plate is now put into water, and allowed to soak till all the unaltered bichromate is washed out; then give a good rinse under the tap, well clean the back, and put away to dry spontaneously. They should not be used at once, but allowed to get thoroughly hard. The plate, after being put under the tap and dried with a cloth, is soaked with a mixture of glycerine, 40 oz.; saltpetre, 2 oz.; ammonia, 7 ozs., for about five minutes, and dried again with a cloth, and is then ready for the printing, which can be either done in a hand-press or by steam. The ink is very much like litho, and the machine the same. I should like to have had a small press in this evening to show the printing, but as I could not manage that, I have brought you plates in various stages of preparation and prints for your inspection. I don't pretend to anything new, but I have tried to show you how collotype is worked, and the foregoing is exactly how it is worked every day by one of the largest firms in the world. I shall be happy to explain anything that I have not made quite clear, and answer any questions you may please to put to me.

The contributor of this paper, who kindly attended to explain anything which might be desired, unfortunately had to leave before the paper had been finished. The President, therefore, announced that the Secretary would as far as possible answer any questions which might be put to him with regard to the process.

Mr. Cherry, one of the members of the Council, said that in



the specimen plates now placed before them for inspection in the different stages of preparation, there was one which he understood was ready to be inked up and printed from, but from an examination of it he failed to see how it could be possible to obtain any print from it, as there was scarcely any relief perceptible, and the image almost impossible to be seen, except when so held that the light was reflected, and therefore the ink would spread equally all over and block up the lights, and he should like to have the process explained more fully after the plate had been exposed behind the negative.

The Secretary: The inability to appreciate the manner in which a print is made from such a plate arises from a misconception of the basis upon which the process is worked, as it does not depend upon the relief for the lights, but when the prepared gelatine is exposed behind the negative the light penetrating through that made it insoluble in those places and incapable of absorbing the hygroscopic substance with which it was afterwards flooded, which was done to cause those parts which had not been exposed to the light to repel the fatty ink; thus the parts which had absorbed most moisture would not receive any, while to that which was less moist more ink would attach, and in the parts most exposed to light the ink would attach itself, thickly focussing deep shadows in the prints.

Mr. Forbes wished to know whether all those shown were collotype prints, or whether some which he pointed out were not on albumenised paper.

The Secretary: Those prints are all produced by the collotype process, the glossy surface being produced after printing.

Mr. Pither: I notice that while some of these prints have an entirely matt surface others have a finished glazed surface, and I should like to have an explanation of the manner in which this is produced.

The Secretary: It is obtained by what is known as the water varnish, that is, a solution is made of borax in water, and shellac is then dissolved in it; the paper is then floated on this, which gives it the prepared face.

On Monday, September 22nd, Mr. C. Beadle will give a demonstration on lantern-slide making.

## Notes from the Liverpool Centre.

(By our District Editor.)

OUR Presidents and Secretaries are in a kind of quandary just at present. The weather is responsible for this—the “second summer,” with which we are now being favoured, again taking members out of town for a further holiday. A week or two ago the attendance at the various societies in our district was good; now it is almost *nil*. One Secretary complains to me bitterly about the poor attendance at his society. He says that the number of members at the recent meetings is the “thinnest” he has known.

Pretty much this state of things rules at the Liverpool rooms, where the crowd of working members, usually very reliable in their frequent visits to the rooms, are conspicuous by their absence. It is intended to organise a final excursion to close the Liverpool 1890 excursion season. The “out” will probably take place in a week or two, when the excursionists will leave the Lord Street rooms in waggonettes for a ten or twelve miles’ drive into the country.

The new Archer lantern which was requisitioned at the ordinary monthly meeting of the Birkenhead Association last Thursday has been rather prematurely introduced to the public. Messrs. Archer kindly lent the instrument at the earnest entreaty of a gentleman anxious to show a novelty to the best advantage. They promise me a detailed description of the new lantern for next week’s AMATEUR PHOTOGRAPHER. The Birkenhead meeting passed off very satisfactorily.

Mr. Lange is to give “Norway” at the Y. M. C. A. here in October. I believe this lecture is very largely in demand just now.

One or two important steps have been taken in regard to the Liverpool (1891) Exhibition during the past week. Applications for space come from far and wide. *Apropos* of the Exhibition, I may say that a large proportion of the work sent in for the Boston return set of slides is of a high standard. Mr. C. B. Reader, the Hon. Secretary to this movement, will be glad to get the matter finally closed.

## Societies’ Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRKENHEAD PHOT. ASSOC.**—The usual monthly meeting of this Association was held on the 11th inst., the President, Mr. P. H. Phillips, occupying the chair. Several specimens of printing under green glass were exhibited by the members. A discussion as to printing processes was opened by the Hon. Secretary, Mr. C. B. Reader. Messrs. Archer and Sons exhibited their new biunial One-light lantern and the Guinea detective camera. Messrs. Sharp and Hitchmough exhibited the Bawness, a half-plate camera of extreme portability and somewhat novel pattern.

**BRIGHTON PHOT. SOC.**—The meetings of the Society are now held at the spacious Arch, 40A, King’s Road, at which an excellent dark-room has been fitted; this provides accommodation for three workers, and has lockers for the storage of apparatus, chemicals, etc. It is well lighted by gas, and efficiently ventilated. This room will be available for visitors’ use, and applications for same can be made to the Editor of the AMATEUR PHOTOGRAPHER, in the usual manner. On the 9th inst. it was open to inspection, and met with general approval. Mr. J. P. Slingsby Roberts presided. Mr. A. H. Webbing read a highly interesting paper on “Exposure,” and a good discussion ensued. Specimens of prints on Scholzig’s paper were handed round. Copies of Exposure Tables by Vise and A. R. Wormald were also explained.

**CROYDON CAMERA CLUB.**—The ordinary meeting was held on the 9th inst., Mr. H. Maclean in the chair. Mr. Fuller’s election was confirmed. The President next proceeded to announce the result of the competition lately held by members at Merstham and Yatton, and declared the winner to be Mr. A. E. Isaac, the award being received by all present with considerable applause. The negatives were taken on England’s celluloid films, and developed with pyro-ammonia; the prints were in platinotype. The President intimated that he would be pleased to offer a cash prize to be competed for by members, the subject to be “A View on the Wandle,” prints to be delivered at the Club meeting room on or before Wednesday, October 8th. Amongst the work handed round during the evening (in addition to the competition prints) specially commendable was a well-executed church interior, possessing many of the best qualities of an engraving, and free from all halation, executed by Mr. Isaac. Also worthy of notice were the figure compositions of Mr. Underhill, representing such subjects as “The Fairy Tale,” “Work,” “Rest,” etc., and these were shown in the form of lantern slides. On Saturday, September 13th, an informal excursion proceeded to Oxted and Limpsfield.

**HARLESDEN AND WILLESDEN PHOT. SOC.**—At the meeting on the 9th inst., the President (Mr. J. Naylor) occupied the chair, and a paper was read by Mr. Seed, entitled “A Holiday Ramble Round Guildford with a Camera.” The subject was treated in a facetious style by Mr. Seed; and the President, who had prepared some capital slides, operated with the optical lantern. After the paper had been read, some local views were passed through the lantern, and were much enjoyed by those present. Several new members were enrolled. The next meeting takes place on Tuesday next, at 8.30.

**HOLBORN CAMERA CLUB.**—A meeting was held on the 12th inst., Mr. Plumbridge in the chair. Mr. Bayston read a paper from the AMATEUR PHOTOGRAPHER, by C. J. Leaper, on “Enlarging by Artificial Light.” After a discussion on the same, the meeting was brought to a conclusion. This evening (Sept. 19th) Mr. Baker will tell how he spent his holidays in Derbyshire and Yorkshire, illustrated by about sixty lantern slides.

**KENDAL LIT. AND SCI. INST. (PHOT. SECTION).**—The annual meeting was held in the Museum Library on the evening of the 10th inst., Mr. Isaac Braithwaite presiding. The report was unanimously adopted, from which we note nine evening meetings have been held during the year. These have been, on the whole, well attended, whilst the papers read and the discussions following show a considerable advance in point of merit. This year a special competition was tried, each member being allowed to exhibit four slides only. Some excellent work was shown, being considerably above the average of the previous year. The Com-



mittee thank the Council of the Institution for the use of rooms, and the Editor of the AMATEUR PHOTOGRAPHER for the kind loan of competitive prints and slides. The following officers were elected for the ensuing year: Chairman, Mr. Isaac Braithwaite; Secretary, Mr. Charles E. Greenall; Treasurer, Mr. S. Rhodes; Committee, Messrs. Frank Wilson, S. R. Rowling, the Chairman, Secretary, and Treasurer of the section, and the Secretary of the Institution. It was decided to have a print competition in December next, and a lantern-slide competition in February. Through the kindness of the Editor of the AMATEUR PHOTOGRAPHER, a large number of the prize-winning pictures of the "Travelling Studentships" were exhibited, and elicited most hearty praise. Mr. Otto Scholzig also kindly sent specimen prints of his "green glass" process. Two new members joined the section, Messrs. James and Henry Rhodes.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—The result of the Silver Print competition, in which a large number of the members took part, is as follows: AMATEUR PHOTOGRAPHER Bronze Medal, awarded to the Secretary, Mr. B. Davidson, for his picture "In the Tropical Gardens, Jersey;" the second place was gained by Mr. Pierpoint Miles, for his print "In the Crown Lands, Eltham" (splendid tone); and the third by Mr. Castle, for a view taken at Caen, Normandy. The two latter gentlemen receive framed certificates. Mr. Charles W. Hastings kindly undertook the judging. The views will all be shown at the club meeting September 19th.

**PEOPLE'S PALACE PHOT. CLUB.**—The third annual meeting of this club is announced to be held on Friday, the 3rd of October, at eight p.m., in the Studio of the People's Palace, Mile End Road, when the report will be read and officers for the ensuing year elected.

**STOCKPORT PHOT. SOC.**—The usual monthly meeting was held on the 10th inst., at the Mechanics' Institute, the President, Mr. Thomas Kay, J.P., in the chair. After the usual routine business, Mr. G. Wheeler, of Manchester, read a paper on "Bromide Printing," with special reference to printing in clouds by means of painting on the back of the negative. Mr. Wheeler, in the course of his remarks, said the facility with which prints might be made on bromide paper was causing many photographers to adopt it. In addition to speed and ease of working it had other advantages, such as being independent of weather and daylight, requiring no toning, was permanent, and with a suitable negative a print might be made in a few minutes, and

would only require fixing and washing to be complete. If an eikonogen or hydroquinone developer, neither of which required any clearing, were used, the whole process amounted to placing a piece of the paper in contact with the negative, exposing it to the gas-light for a few seconds, soaking the paper in clean water for one minute, then placing it face up in a dish and pouring the developing solution upon it. When the picture was developed sufficiently, it was removed to a dish of clean water to be fixed and washed along with others in a batch. The ferrous oxalate developer took rather longer time because it must be cleared. Mr. Wheeler then gave a practical demonstration, using Payne's grey as a medium for painting at the back of the negative, Ilford slow paper, and eikonogen developer.

**WEST SURREY AM. PHOT. SOC.**—Mr. John Watkinson, the late Hon. Secretary, writes us from Swanage: "Before I left London the members of this society kindly presented me with an Optimus lantern, as a recognition of my services as Honorary Secretary. I am unable to thank the subscribers individually for their handsome gift, as they have decided to keep their names secret, but shall feel indebted to you if you will allow me to do so through your columns, and assure them it is highly appreciated, and will be of great service to me here."

**WOOLWICH AND DISTRICT PHOT. SOC.**—The monthly indoor meeting was held on the 10th inst. at Freemasons' Hall, Mr. South in the chair. The question of amalgamating with the new branch of the Polytechnic was brought before the meeting, and Mr. Widden (the Secretary) attended and stated that he would lay the matter before the trustees. The prints from the last excursion were then handed round for inspection and criticism. Mr. J. Brooks sent word that he had obtained permission from his friend, Mr. Cochrane, the Manager of Rosherville Gardens, for a visit for the Society to the gardens, with leave to photograph there, and great amusement was caused by an announcement from the indefatigable and zealous Mr. Calder that he had already taken advantage of the permission, and had "spied out the land," at the same time handing out some excellent twelve by tens of the gardens, which he intends presenting to Mr. Cochrane. It was decided that the field work of the season should close with the Rosherville visit on September 27th. Mr. Calder, jun., the youngest member of the Society, handed round his first mounted print, a view of Erith Church, which, for a photographer of twelve years of age, was most promising.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns MUST be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4159. **Shutter.**—Can anyone tell me how to measure the length of exposure given by Lancaster's quarter-plate Instantograph shutter, as there is no means of setting the shutter to give any desired exposure?—**NEMO**.

4160. **Church Interior.**—Will someone kindly give me their advice as to taking a view of the interior of a dark church, looking eastward. It has

no east window, that end being lighted by four windows in the chancel. The chancel is only a small one. I shall be most grateful for any hints as to necessary exposure, stop, plates, and development. I use an 8 by 5 R. R. lens?—**T. T. BRODICK**.

4161. **Shutter.**—Will someone kindly recommend an inexpensive but thoroughly reliable shutter, also say if it is of any special advantage to have one that allows of increased exposure for foreground?—**GARRISON**.

4162. **Dark Room Lamp.**—Will someone recommend a cheap but perfectly safe dark-room oil lamp, also say if a yellow light is as safe to work by as the red? I only use Ilford ordinary and rapid plates.—**GARRISON**.

4163. **Instantaneous Work.**—Will some one please give me a formula with washing soda as the alkali, adapted for instantaneous work?—**J. G.**

4164. **Toning solution.**—Which is the best bath? I use the bicarbonate and acetate bath, but cannot get my tones to a satisfactory purple hue. Is this the fault of the toning solution or of the paper?—**G. A. D.**

4165. **Pinholes on Negatives.**—Can these be remedied, and how? I have several negatives which are completely spoiled by numerous pinholes.—**G. A. D.**

4166. **Transparency Paper.**—Can anyone give me his experience with Vever's new transparency paper? It is supposed to be a printing-out process, but although I have had it under a good negative in the sun for four hours, only an exceedingly faint image is visible, and when treated as the makers direct, only a very unsatisfactory picture is produced. Any information concerning this process will be thankfully received.—**S. O. B. (Genoa)**.

4167. **Small Photographs in Charms, etc.**—I am in want of a quantity of the small micro-photographs, such as are used in small charms, pendants, etc., i.e., the lens and photograph combined ready for inserting in any article fitted for them, only I want special subject made from my own originals. Will someone inform me, or through your correspondence columns, where on the Continent these things are made, together with names and addresses of the makers?—**JOHN CAMPBELL**.

4168. **Transparencies, How to Mount.**—Can anyone tell me how to mount transparencies so as to utilise them for decorating a bath-room window, the

upper half of which is one large sheet of plate glass. Ought it to be quite covered with half-plate transparencies, and how can they be fixed?—**LINUS**.

4169. **Copying.**—I have tried several times with a half-plate camera and R. R. lens to copy a carte-de-visite, but can only get one an inch long and five-eighths of an inch broad to have them in focus. Any information will oblige.—**IVY**.

4170. **Toning Bath.**—Can anyone kindly inform me as to the right proportions of gold and acetate for black tones?

4171. **Weights.**—Will any of your readers oblige me by telling me the correct weights of grains, dwts., ozs., drams, in money, as I think they would be of general service in case of loss of weights?—**G. H. G.**

4172. **Stains on Prints.**—Will you or any of your readers kindly tell me the reason why, on taking my prints from running water where they were left all night, there are yellow spots all over them?—**G. H. G.**

4173. **Waterproofing.**—Will any of your readers kindly tell me the best way to make calico sheeting waterproof?—**C. H. G.**

4174. **Tinting Photographs.**—Would any one kindly inform me how I can make water-colours do for tinting photographs? Gum-water runs like grease over the photograph, and it easily comes off when handled or anything touches the surface.—**NOVICE**.

4175. **Borax Toning Bath.**—Should like to know how to make up a reliable borax toning bath for use same day—enough for one sheet of paper? I find the one in Harrison's book stops toning after doing ten carte-de-visite size.—**NOVICE**.

4176. **Iso. Plates and Gas Light.**—Can any reader inform me whether isochromatic plates will have any advantage over ordinaries for taking a portrait in a room lighted only by gas? If so, I should be very glad of hints on the management of isochromatic plates, as I have never yet used them.—**SAUL**.

4177. **Copying Old Painting.**—I am desirous of photographing an old picture, which measures about 4 ft. by 3 ft. Could I manage to get satisfactory results with a quarter-plate Lancaster's Instantograph and lens as supplied? The painting is very dark in colour and of a uniform tint. Would isochromatic plates be indispensable?—**SAUL**.



4178. **Margate.**—I shall be obliged if any reader can inform me if there are any good pictures to be taken in the neighbourhood of Margate? Also, if permission is required to take photographs of Canterbury Cathedral?—JAMES CAVEN.

4179. **Hydroquinone Formula and Bromide Paper.**—Will anyone give me best formula for developing Ilford bromide paper with hydroquinone—one solution preferred?—J. D. MEEK.

4180. **Eastman's Transparent Film.**—Why is the smell like jargonell pear drops, and is it essential?—J. CORREY.

4181. **Instruction Book.**—Will anybody kindly tell me the best and most instructive, and the simplest guide book to photography, saying where I can get it, and the price?—INSTANTOGRAPH.

4182. **Pure Black Tone.**—Will any brother amateur recommend a pure black tone for gold toning on albumenised paper? Have tried several toning baths with no result but a dark brown.—NIMROD.

### QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.  
18th.—Nos. 4009, 4020, 4027, 4029.  
25th.—Nos. 4036, 4045.  
Aug. 8th.—Nos. 4061, 4066.  
15th.—No. 4076.  
22nd.—Nos. 4089, 4090, 4093, 4096, 4100, 4104.  
29th.—Nos. 4111, 4113, 4116, 4123, 4124, 4125, 4127.  
Sept. 5th.—Nos. 4129, 4131, 4133, 4136, 4137, 4141, 4143, 4145, 4148.  
12th.—Nos. 4149, 4150, 4151, 4152, 4153, 4154, 4155, 4157, 4158.

### ANSWERS.

4130. **Hand-Camera for Lantern Slides.**—You will find Griffiths' Guinea camera as good as any for lantern slides, and better than some which cost twice as much.—B. H.

4135. **Morecambe.**—Little of interest in Morecambe itself, but Grange over Sands, about thirty miles off, is a beautiful little place, and the old town of Lancaster is close to and worth a visit. Morecambe itself I consider a failure photographically. Would advise "Bromide" to stay at Grange for preference. Visit the park at Lancaster.—COLONIST.

4147. **Sheffield.**—If "New Babylon" will communicate with me, giving particulars of his intended visit, I shall be pleased to give him all information and assistance.—STEELOPOLIS (Address with Editor).

4156. **Transparent Vignette Paper Sticking to Negative.**—"D'Arcy" will find the vignette papers answer well if he puts them in front of negative (on the glass side). I always use them that way, and like them much better than the cut ones.—B. H.

### EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED:AM:PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**CURANO.**—We have no knowledge of firms who could supply you with what you require.

**E. P. FIELDS.**—Many thanks; shall be glad of the prints.

**J. G.**—Use the formula recommended by the makers.

**W. SHAW ADAMSON.**—The correction shall be made.

**JOHN CAMPBELL.**—We cannot help you, but insert as a query.

**ALPHA.**—Your question is not endorsed with name and address. See rule 3.

**EDENBOROUGH.**—Either A, B, or C, will be found to be good all-round lenses. Use chrome alum, 1 oz.; citric acid, 1 oz., and water, 20 ozs. Possibly too much salt. Very capital cameras.

**J. H. TELFER.**—The best information upon the collodion process is to be found in "A Treatise on Photography" (Abney). We cannot in this column give you the advice you require. The raised enamel surface is obtained by use of dies and presses. No; but two excellent papers are to be found in AMATEUR PHOTOGRAPHER, vol. x., pages 366 and 396. We only know of Ferrero's.

**G. BYFIELD.**—No. 1 would, we think, best suit your purpose.

**ARISTOPHANES.**—Have the appearance of hypo stains, for which there is no remedy. Take a fresh print, and keep your fingers free from hypo or

grease. You should lay the prints between clean blotting paper, not handkerchiefs, in the washing of which soda in some form has probably been used.

**Z. Q. A. (North Burma).**—It is just possible to carry out the idea, but it would be greatly inferior to the usual arrangement both for efficiency and convenience.

**P. A. H.**—We do not know the particular camera you name, but the apparatus we have seen made by the firm is of very good quality.

**E. KITTO.**—Many thanks for the information.

**F. E. P.**—In all probability the makers can supply the shutter for instantaneous or time exposures. We do not think you must build upon making much money out of your invention. We should advise your continuing your work in a factory, and think twice before you give it up to go into photography.

**AN AMATEUR.**—The firm you mention are well known to us, and are thoroughly reliable people. We should advise you to write to them again.

**JOHN W. EADIE.**—(1st) We should advise you to go in for B., and shall be very pleased to find another Scotchman taking medals in our competitions. (2nd) The landscape prints will be very acceptable for our hospital collection. Will you please write the titles on the back of the prints, or number them and make a list.

**T. R. R.**—You will be quite pleased with either two or three. We have heard the same said of the lens you mention.

**M. C. C. C. LUDER.**—The A lens will answer your purpose for all round work. We place the other lenses D. F. B. G. C. We did not know that E made any special lens.

**NOVICE.**—Your friend should have completed the formula, which is:—

Chloride of gold ... .. 15 gr.  
Acetate of soda ... .. 480 "  
Distilled water ... .. 7½ oz.

For use, mix ½ oz. equal to 1 gr. of gold, to ½ pint of water for every sheet of paper to be toned. Negatives 4 oz. to the pint of water; prints 2 oz. to the pint. You had better buy "Experimental Photography" (Leaper), or "Photography for All" (Harrison), both published at 1s.

**PERPLEXED.**—Any good make of R. R. lens will answer your purpose.

**GEO. DE BELLE WALL.**—Thanks for use of dark-room; hope you will be in time for the next "Monthly Competition."

## Monthly Competition.

No. 16.

INSTANTANEOUS PHOTOGRAPHS, ANIMALS, ETC.

Title of Picture.	Name of Sender.
Cycle Race ... ..	L. Meldon
Leaping ... ..	J. Morison
Harvest ... ..	R. K. Sandan
H.M.S. Crocodile ... ..	E. J. Fielden
Fritz ... ..	F. K. Fairless
At Paris, 1889 ... ..	G. Lewis
Harvest, from Sheaves to Grain	J. Tims
A Group of Cows and Calves ...	A. W. Gottlieb
Puffins on Skromr Island ... ..	Miss C. V. Davies
Greedy Bob ... ..	Count d'Assche
On the Thames, near Gravesend ...	A. H. Webling
Indian Bullocks in Cart ... ..	F. H. Hanna
Boating at Hastings ... ..	C. Churchill
Off with the Tide ... ..	E. Blakey
Elephant and Keeper ... ..	E. J. Jackson
Lady Rowena ... ..	F. M. Pellatt
Black and White Setter ... ..	H. H. Hammond
Horses in Field ... ..	C. F. Webb
The Innocents Abroad ... ..	G. J. Moore
We could a Tail Unfold ... ..	Miss H. Beatson
The Master of the House ... ..	E. B. Wain
Newaven Harbour ... ..	H. C. Taylor
Tennis ... ..	J. Pollard
Torquay Station ... ..	E. Spain
Meet of the South Notts in Chilwell Park ... ..	A. E. Edwards
Washing Day—Hung Up to Dry ... ..	Rev. G. F. Sharland
Alderney Cows ... ..	J. O. Bary
H.R.H. the Prince of Wales' Zebus at the Zoo ... ..	A. R. Dresser
Halloo! Rats! ... ..	H. Kilburn
Nanda ... ..	E. Davis
West Parade, Hastings ... ..	C. H. D. Green
For Hire ... ..	W. T. Crank
Stuckley Manor Farm ... ..	Mrs Benyon
At the Kennels of the Haydon Hunt ... ..	A. R. Speirs
Puppy Wants the Bone ... ..	C. S. P. Wood
Yarmouth Harbour ... ..	E. J. Hubbard
Fishing Smacks of Lowestoft ...	A. W. Dunn
Nature and Art ... ..	Rev. W. Ross
Ilfracombe Regatta ... ..	W. H. Passmore
A Windy Day at Sandwich ... ..	H. H. Gray
Breaking Waves ... ..	A. J. Golding
Arthog Falls ... ..	J. H. Thornton

Yachting off Bangor ... ..	J. McCleery
An Intruder ... ..	J. Bamford
Cattle at Blessington ... ..	H. Goodwillie
Sheep ... ..	E. Griffiths
Mrs. Pig and Family ... ..	Miss S. Clark
A Cooling Bath ... ..	G. T. Frith
Curiosity ... ..	B. Buckle
Mr. Stokes and his Beagles ... ..	Miss Simpson
Ready for the Start ... ..	W. S. Adamson
A Jersey Pasture ... ..	Mrs. Malcolm
A Group of Southdown Lambs ...	A. Pollard
Pastoral Scene ... ..	T. L. Buck
A Prodigious Jump ... ..	B. W. Hill
Cycle Race, Scarborough ... ..	A. W. Nicholls
A Header ... ..	G. L. Julian, junr.
Ready for a Sail ... ..	W. H. Marsh
Leap-frog ... ..	W. N. Ellis
After the Battle with the Rats ...	D. Entwistle

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the SELLER to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

**Deposits for goods** to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

**Advertisements** can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Banjo.**—Five strings, splendidly plated hoop and fittings, walnut and ebony inlaid handle, ivory keys, perfect tone and condition, in leather case with lock and key; cost £5 10s., price 55s.—Tranter, 336, Wandsworth Road, S.W.

**Bicycle, etc.**—Exchange 54 in. bicycle, ordinary, Bown's balls to both wheels, good condition, fifteen Homing pigeons, some flown 84 miles, parents flown 124 to 500 miles, also 40s. cash or more, for good half-plate camera and lens; approval.—H. Mellroy, 54, Tennant Street, Hebburn-on-Tyne.

**Book - Camera.**—Krugener's book-camera for twenty-four plates, lovely little instrument, with various sundries; cost £6 6s., will accept £3 10s.; returnable negative sent on application.—T. Crabbe, Three Bridges, Sussex.

**Cameras.**—Whole-plate Scotia camera, with two fronts and two double backs, with automatic closing springs, all brand new; 98s.—G. B., 43, Mitchell Street, E.C.

**Lantern slide camera** and six double backs, takes plates 3½ by 2½, whole-plate, just cuts into six, has every modern improvement, made specially for cycling, if put in case would make capital detective, fitted with best rectilinear lens, Thornton-Pickard shutter, and light tripod; price £5, or separate.—T. Hall, Pinfold Lane, Lancaster.

**Rayment** 10 y 8 camera, and two double slides, equal to new; £7.—Evans, Stationer, Conway.

**Cameras, etc.**—Half-plate mahogany bellows camera, with folding tailboard and two double dark slides, perfect, nearly new; price only 21s. cash.—G. Pick, 69, Avondale Road, Peckham, London, S.E. Lancaster's half-plate 1890 Instantograph, three double slides, and bag; 90s., new. Twelve vols. "History of England," with illustrations; cost 6s. 6d. each, cash 60s., unsold. Good violin in case; 20s.—Further particulars of Beckitt, 21, Upper Moorsca Street, Bradford.



**Camera, Lens, etc.**—12 by 10 double extension conical bellows camera, rising front, swing and reversing back, one double mahogany book slide, and long-focus landscape lens; in exchange for good whole-plate, with two or three backs, and no lens or stand.—G. A. Knight, Seaford, Sussex.

**Exposure Meter, etc.**—For sale, or exchange, Watkins' exposure meter, 10s.; type-writer, 25s.; Lancaster's rectigraph lens, £2 2s.—G. S. Cousins, Birchington.

**Hand-Cameras.**—Fallowfield's Facile hand-camera, latest improvements; cost 5 guineas, bought last month, sell for 4 guineas.—M. E. B., 1, Marine Parade, Budleigh Salterton, Devon.

Griffiths' Guinea camera; exchange lantern slides.—J. O. Grant, 63, Finsbury Pavement, E.C.

**Hand-Camera, etc.**—No. 1 Demon, twelve plate bags, also Demon enlarging apparatus, complete; 7s.—Henry Thompson, Gun's Lane, West Bromwich.

**Lenses.**—Laverne's celebrated rectilinear detective lens; price 18s.—Meadway, Vestry Hall, Church Row, Bethnal Green.

Steinheil's No. 7 antipianic lens, perfectly new, the lens for large shutter work, groups, and large heads, aperture  $3\frac{1}{4}$ ,  $f/17\frac{1}{2}$ , covers sharply  $10\frac{1}{2}$  by  $8\frac{1}{2}$ , with full aperture; cost £13 5s. 6d., price £12.—Williams, One Oak, Tunbridge Wells.

Quarter-plate R.R., working at  $f/8$ , good definition; 15s. Lantern objective wanted.—309, Liverpool Road, N.

**Lenses, etc.**—Quarter-plate Mawson and Swan rapid rectilinear lens; cost 35s., price 20s. Ker-

shaw instantaneous shutter, cost 18s. 6d., price 8s. 6d.; finder, 1s. 6d.; or 33s. the lot.—Rev. Hick, Whickham, Newcastle-on-Tyne.

For sale or exchange, 7 by 5 R.R. Optimus lens, six Waterhouse stops, in leather case. Wanted, whole-plate, of equally good make; list price of one above £2 9s. 6d., best condition.—James Cottingham, 22, Station Row, Parkgate, Rotherham.

**Oxygen Bags, etc.**—Two 4 ft. oxygen bags, pressure boards, copper retort, zinc purifier, and 18 ft. tubing; 40s., or will sell separately.—Seddon, 55, Evington Road, Leicester.

**Safety Bicycle.**—Premier pattern Safety, balls throughout, including pedals, adjustable to any rider, plated and enamelled, in splendid condition everywhere, with all accessories; sacrifice for £8 10s., great bargain.—H. B., 2, Acre Lane, Brixton, S.W.

**Sets.**—Whole-plate camera, Ross R.R. lens, four metal double backs, leather case, tripod; cost £23; offers?—Sinclair, 139, Cannon Street, London.

A complete photographic apparatus, including half-plate camera and tripod, and quarter-plate camera and tripod, Newton's orthopanacine lens, which will work both cameras, two books of instructions, vols. 3, 4 and 6 of the AMATEUR PHOTOGRAPHER (now out of print), printing frames, etc., etc.; no reasonable offer refused.—Apply, W. C. F., 122, Ilbert Street, Queen's Park, W.

Lancaster's 1890 half-plate Instantograph camera, dark-slide, tripod, fitted with 7 by 5 rapid rectilinear doublet lens,  $f/8$ , with stops, new; bargain, 72s.—Herbert Rowe, Walbridge, Stroud, Glou.

**Tripod.**—Lancaster's two-fold mahogany tripod, good condition; 4s. 6d.—309, Liverpool Road, N.

## WANTED.

**Camera.**—12 by 10 camera, Instantograph preferred; cash price.—Hartley, Studio, Trawden, Colne, Lancashire.

**Hand-Cameras.**—Facile hand-camera; would exchange Homing pigeons, descended from those used during the siege of Paris, 1870; and dipping bath and other photographic sundries.—T. Crabbet Park, Three Bridges, Sussex.

Defective camera, quarter-plate, will exchange for Lancaster's Le Marveilleux quarter-plate and cash (letters only).—Thompson, Canol Dee, Abergele, North Wales.

**Lantern.**—Binial lantern, 4-in. condensers. Lime light, gas cylinders, etc.—Bromhead, 1, Regent Street, Clifton.

**Retouching Desk.**—Retouching desk, for photographs 10 by 8 and downwards, with inner frames.—W. Groves, Woodford.

**Sets.**—Whole-plate photographic apparatus, modern and best quality.—Bucknall, Blackpill, Swansea.

Half-plate set, complete or separate, good lens, three dark slides, etc., for cash.—H. Sandeman, 77, West Street, Brighton.

**Studio.**—Small studio, suit amateur; state price; carriage paid to Martock.—W. Chant, West End, Stoke-under-Ham.

**MR. R. E. WILKINSON**, late of 199, Hollydale Road, Peckham, is requested to send his address to the Rev. H. G. CAMPBELL, Marchfield, Braeknell.

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## NOTICES TO SUBSCRIBERS.

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UNITED KINGDOM .....	Six Months, 5s. 6d.....	Twelve Months, 10s. 10d.
POSTAL UNION .....	6s. 6d.....	13s. 0d.
INDIA, CHINA, ETC. ....	7s. 9d.....	15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice, or Review are to be addressed to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS OF THE AMATEUR PHOTOGRAPHER offer, Monthly, two prize consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP),

for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 17.—ENLARGEMENTS (2 Silver and 2 Bronze Medals) ...	Oct. 1.
18.—INLAND SCENERY, LANDSCAPE ... ..	Nov. 1.
19.—SEASCAPE AND RIVER SCENERY ... ..	Dec. 1.
20.—PORTRAITURE AND FIGURE STUDY ... ..	Jan. 1.
21.—ANIMALS AND INSTANTANEOUS SUBJECTS ... ..	Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the AM. PHOTO.

All photographs for any of the above competitions will be acknowledged in the columns of the AMATEUR PHOTOGRAPHER.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.

ELLIOTT & SONS, "BARNET" PLATE,

PARK ROAD, BARNET.

Important Advertising Medium.

The Photographic Reporter.—Published Monthly.



# "AMATEUR PHOTOGRAPHER"

## MONTHLY COMPETITIONS.

### SILVER & BRONZE MEDALS GIVEN EVERY MONTH.

<b>No. 17.—ENLARGEMENTS (2 Silver &amp; 2 Bronze Medals),</b>	<b>Last day, October 1st.</b>
„ <b>18.—INLAND SCENERY, LANDSCAPE.</b>	„ <b>November 1st.</b>
„ <b>19.—SEASCAPE and RIVER SCENERY.</b>	„ <b>December 1st.</b>
„ <b>20.—PORTRAITURE and FIGURE STUDY.</b>	„ <b>January 1st.</b>
„ <b>21.—ANIMALS and INSTANTANEOUS SUBJECTS.</b>	„ <b>February 1st.</b>

One Print only to be sent in. Open to Ladies or Gentlemen.

Entry Forms sent on receipt of stamped addressed envelope, endorsed :—

MONTHLY COMPETITION,

EDITOR, "AMATEUR PHOTOGRAPHER,"

1, CREED LANE, LONDON, E.C.

NOTE.—The Prizes are announced in the "AMATEUR PHOTOGRAPHER," but all prints are criticised in, and the First Prize picture published as a Frontispiece to, and many others reproduced in the

## PHOTOGRAPHIC REPORTER.

Published Monthly. Price One Shilling.

# "AMATEUR PHOTOGRAPHER"

## LANTERN SLIDE COMPETITION.

### THIRD YEAR.

**PRIZES:—FOUR GOLD MEDALS. FOUR SILVER MEDALS.  
FOUR BRONZE MEDALS. FOUR CERTIFICATES.**

COMPETITORS MAY ONLY ENTER IN ONE OF THE FOLLOWING CLASSES, TEN SLIDES ONLY TO BE CONTRIBUTED,

**CLASS I.—Landscape, River Scenes, and Seascapes.**

**CLASS II.—Figure Studies, Genre Pictures.**

**CLASS III.—Animals, and Instantaneous Pictures (not Landscape).**

**CLASS IV.—Architecture, Exterior or Interior,**

ALL SLIDES MUST BE RECEIVED ON OR BEFORE **NOVEMBER 22nd.**

The Prize Slides are to become the property of the Proprietors of the "AMATEUR PHOTOGRAPHER," and will be available for loan to Photographic Societies and others, on and after the 30th of November. Early application should be made for them. The Prize Slides will number 160, provided the Judges award all the prizes.

No Slide that has previously been awarded a prize in the "AMATEUR PHOTOGRAPHER" Lantern-Slide Competition can be entered in the Competition.

The Slides must have the title legibly written on the mount, and must be numbered in accordance with the particulars given on the Entry Form.

The original Negatives as well as the Lantern Slides must be the work of the Competitor, who must also be a *bona fide* amateur photographer.

Rules, Conditions, and Entry Forms will be forwarded on receipt of stamped addressed envelope. The application should be endorsed :—

LANTERN SLIDE COMPETITION,

Editor, "AMATEUR PHOTOGRAPHER,"

1, Creed Lane, London, E.C.



# The AMATEUR PHOTOGRAPHER

phone N<sup>o</sup> 1645  
Telegraphic Address: VINEY, LONDON  
Edited by CHARLES W. HASTINGS

VOL. XII. No. 312.]

FRIDAY, SEPTEMBER 26, 1890.

[PRICE TWOPENCE.]

## ✻ OUR VIEWS. ✻

To hold as 'twere the mirror up to nature."—Shakespeare.

WE are pleased to announce that Mr. W. J. Harrison, F.G.S., the European Editor of the *International Annual*, and author of the "History of Photography," "Photography for All," etc., has consented to contribute a series of articles upon "Instantaneous Photography." The first chapter will appear in the next issue of the AMATEUR PHOTOGRAPHER. The subject will be dealt with most exhaustively. Mr. Harrison is so able and so well known a writer that we are quite certain our subscribers will receive instruction and much valuable information from his treatment of "Instantaneous Photography."\*

\* \* \* \*

OF the last number of the *Photographic Quarterly*, Col. Waterhouse, R.E., of Calcutta, writes:—"It is replete with matters of interest."

\* \* \* \*

THE *Photographic Reporter* is fast taking its place as the best monthly photographic magazine. Mr. S. Francis Clarke, L.D.S., a very active member of the Louth and District Photographic Society, writes:—"The *Reporter* is a grand shillingsworth, and should be in the hands of every photographer. The monthly review of work sent in will prove of interest far beyond the circle of the competitors themselves. It is a great educational step in advance, and will show clearly the standard of work that should be striven for in the various branches of photography."

\* \* \* \*

LAST week we announced particulars of the "Lantern Slide Competition" and "Stereoscopic Slide Competition." This week we announce a new departure, in the AMATEUR PHOTOGRAPHER Competition, "Holidays with the Camera." This will cover the "Holiday Work" and "Prize Tour" Competitions that have been usually announced about this time or earlier in the year. The contributed photographs will have to be sent in on or before the 31st of December, and an illustrated account of the competition will be published on or before the 31st of March, entitled

\* In connection with Mr. Jerome Harrison's work on "Instantaneous Photography," the author wishes us to mention that he will be pleased to examine and report upon articles of apparatus, cameras, shutters, etc., which may be sent to him (carriage paid) at 365, Lodge Road, Hockley, Birmingham.

"Holidays with the Camera; Where to Go, How to Get There, and What to Photograph."

For some time we have felt it unfair to new workers that we should allow past AMATEUR PHOTOGRAPHER medallists to enter our competitions without, in sporting parlance, handicapping them. Instead of doing that, we have, at the suggestion of a past prize winner, arranged three classes open to prize winners of certain grades, and to these competitors we offer the first of the AMATEUR PHOTOGRAPHER "Progressive" medals. This medal will have upon its face a relief portrait of the first accepted "father of photography," Nicéphore Niepce, and as it is our intention to have dies struck for the whole roll of "fathers," the amateur photographer will be interested to secure them all. Having secured "Niepce," he will be eligible to compete for "Daguerre," "Fox Talbot," and so on.

The conditions are clearly set out in the advertisement to be found elsewhere, and the formation of special classes for past prize winners will relieve the general competition, and must tend to induce many new comers to enter for the AMATEUR PHOTOGRAPHER original medals. It has also been determined that in future no money prizes will be given by the proprietors of this paper, and, further, that only two large competitions will be held annually. The first (the one announced), which is practically limited to out-door photography; and the second, for which prints will be received on or before the 30th of June, confined to "Photography at Home," i.e., portraiture, figure studies, and genre pictures. Of this competition particulars will be announced. The work will be reviewed in a special publication, to be issued each year on or before the 30th of September. This will take the place of the "Home Portraiture" number.

A "Ladies' Competition" will be arranged, and, with the exception of the "Monthly Competitions," and those already referred to, no other competitions will be attempted. The medal-list will grow larger every year by reason of the "Progressive" series. It should be added that prizes given in the "Monthly Competition," medals of the smaller series, do not debar the winner from entering the open classes in the "Holidays with the Camera" Competition.

\* \* \* \*

"HOLIDAY WORK," which has been so long in hand, will be published on Wednesday, the 15th of October, after which date all prints will be returned both in that competition,



the "Prize Tour," and "Travelling Studentship." No other "Special" will be issued until the 25th of March, 1891.

\* \* \* \*

SECRETARIES of photographic societies are now busy arranging the winter's session's work. We may take credit for helping in no small measure. We are loaning "Travelling Studentship" prints, "Monthly Competition" photographs, and lantern slides. There is hardly a free day between the 1st October and the end of December; on some days we are loaning to as many as six societies in different parts of the kingdom. It is well, in making application, to give optional dates. This year's AMATEUR PHOTOGRAPHER Lantern Slide Competition will surpass anything ever attempted by us. Secretaries should send in their applications. The slides are to be free after the 30th of November. Already many dates are filled. Special evenings should be arranged, and photographic societies should open the exhibition of these slides to the public. We are giving four gold medals. The AMATEUR PHOTOGRAPHER Lantern Slide Competition is not subsidised by any trading firm. The competitors can use what plates they please. One man can only enter one class, not enter all of them and carry off *all* the prizes. It is the fairest and most above-board of any of the many competitions held in this country, and we are advised that it will be an immense success.

\* \* \* \*

THERE are many good photographs in the Exhibition of the Photographic Society of Great Britain. Mr. J. Gale has one or two charming pictures, and Mr. George Davison has some pictures which will create a sensation. We are going to devote more attention to the photographs exhibited, and intend to publish the *best* critique upon the exhibition. We shall, if possible, illustrate each notice with a copy of some photograph which is attracting special attention. As many of our subscribers come to town to see the Exhibition, we would mention that we are "At Home" at Creed Lane, on Mondays, from two to five, and on Thursday mornings from eleven till one. It will, of course, give us much pleasure to have a call from old friends, and also to make the acquaintance of those who only know us through the medium of our several publications.

\* \* \* \*

WE cannot give the complete contents of the *Photographic Quarterly* for October, but as far as we can see they will be: "Artistic Focus and the Suppression of the Lens," by Alfred Maskell, illustrated with a photogravure by Mr. W. L. Colls, from a negative taken without a lens, by the author; "Values," by the Hon. J. G. P. Vereker; "An Idle Trip in Normandy," by Bernard Alfieri, illustrated with reproductions of photographs by the author; "A Dynamical Theory of Colours," by Geo. St. Clair, F.G.S.; "Photography with an Object," by H. E. Murchison; "A Trip to Iceland," by J. Reynolds, M.D., F.R.G.S., with several illustrations reproduced from the author's negatives; and "A New Accelerator in Development," by Henry A. Wickers, L.R.C.P., Lond. The usual summary of the quarter, in which will be incorporated a short and critical review of the best pictures at Pall Mall, will make up the first number of vol. ii. of the *Quarterly*, which will be quite up to the standard of previous numbers of the book.

\* \* \* \*

PERHAPS few of our readers know the admirable work that is being done at the Toynbee Hall, Whitechapel. We were courteously invited by the Warden, the Rev. A. S. Barnett, to the "inaugural meeting of students attending

Toynbee Hall" last Saturday. We were much entertained, and although in the brief time that we could spare, it was impossible to follow the programme, a short reference to it will give idea of how these things are managed in the East-end of London. The students' residences, Wadham and Balliol houses, were open to visitors. Demonstrations with models were given by Mr. A. W. Clayden, M.A. Collections, botanical and geological, were on view, and several microscopes, under the control of the Toynbee Nat: Hist: Soc.: The Toynbee Travellers' Club showed photographs. Addresses were delivered on "Literature," by Mr. P. H. Wicksteed, M.A.; "Some Uses of Electricity," by Mr. A. H. Fison, D.Sc.; on "Weather Forecasts," by Mr. Clayden. There was an organ recital by Mr. A. H. Peppin, B.A., and a "Special Lantern Slide Exhibition" by Mr. L. M. Biden, in addition to which there was an exhibition of photographic work and lantern slide pictures by members of the Toynbee Camera Club. Music, vocal and instrumental, was discoursed in different parts of the building during the evening. We have commented upon the programme at some length to show how photography helped the evening, and how wide-spread is the work being done by camera men.

\* \* \* \*

WE have received the prospectus of an exhibition to be opened on the 10th of November, promoted by the Wolverhampton Amateur Photographic Society. There are no very novel features, except that only a first and second certificate will be given in each class. Rule 6 provides that "In the Amateur Classes the work must be entirely the production of the exhibitor," and Rule 7, that "In the Professional Classes *portraits or groups* must be taken and *enlargements* made by the exhibitor," the inference being that in other classes professional exhibits need not be the work of the exhibitor.

\* \* \* \*

THE Gloucestershire Photographic Society also announce that they will hold an exhibition in 1891, to be opened on the 17th of April. Further particulars will be advertised in due course.

\* \* \* \*

MISS KATE MARSDEN, concerning whose intentions to visit the Russian prisons with her camera we wrote briefly a few months ago, has just started on her philanthropic mission. The result of such a heroic endeavour to penetrate into the dark places of the earth may be as wide-reaching as it is certain to be fruitful in the benefits conferred. Yet another distinguished lady photographer. This is Miss Alice Longfellow, the daughter of the poet. She has attained to a high position among American amateurs, and her views on the Massachusetts shore are an example of fine artistic taste.



"THE GENTLEWOMAN."—The proprietors of this very high-class publication announce that the first Autumn Fashion Number is issued this week. It is a double number, with thirteen full-page fashion plates and an art supplement, and is sold at the usual price of sixpence.

GLoucestershire PHOT: Soc:—The Secretary writes, "The date being now fixed for our triennial exhibition, we shall feel obliged if you will kindly announce the same. The conditions and schedule of awards have been revised, and are now more in accordance with prevailing opinions than the one issued in 1888, although that exhibition proved a success in every way, with its 140 exhibitors and upwards of 600 frames, besides a large show of apparatus. We hope as before to secure the support of leading amateurs and professionals. The exhibition will open Wednesday, April 17th, and close on Saturday, April 27th, 1891. Prospectus will shortly be issued and duly advertised."



## THE WINTER'S WORK.

THE time has arrived when the executive of photographic societies are anxiously casting around for the wherewithal to instruct and fascinate their members. A few hints may, therefore, prove acceptable to those concerned. That which follows is not in the nature of suggestions for all that should be done or left undone, and, of course, all here set down will not be absolutely new to every committee of management; but many will certainly find ideas and suggestions which may materially help in making evening meetings a success.

In these days, when the "cult" is advancing by leaps and bounds, so that scarcely a week passes without the formation of a fresh society, it is obvious that the bulk of those who require catering for are, more or less, still in their novitiate; hence it is well to bear in mind that, as a rule, the more abstruse branches of the art-science should be homeopathically administered.

Two or three consecutive meetings given over to the consideration of intricate technical questions of optics, or obscure chemical theories expounded by means of equations, would materially "fog off" the attendance of the rank and file. On the other hand, care must be taken not to "play it too low," not to spend the evenings allotted to the elucidation of the mysteries of photography in the consideration of unworthy trivialities.

For instance, it sometimes happens that a member is allowed to take up a whole evening in airing his technical deficiencies and his literary shortcomings, by illustrating and describing a tour which has no photographic or any other attraction to any one but the bore who has been let loose upon a congregation of yawning victims. Such an evening's infliction has a deadly effect upon both beginners and proficients. So much for what not to do.

In considering what attractions should be provided for ordinary weekly or fortnightly meetings, no hard and fast rule can be laid down, as a good deal naturally depends upon the age, status, and size of the society; also upon its domiciliary and geographical environments.

The sole possession of commodious meeting-room and laboratory enables a society to undertake different work to one which can only afford to pay for the *occasional* use of a meeting-room. Again, a society's proximity to a large town (or better still, being in one) permits it to accomplish that which one localised in a village, or scattered district, should not attempt. One cannot, therefore, give more than an approximation of what is suitable to most societies.

First and foremost the session should not pass without demonstrations being given of some of the many important processes of development and printing which are in use. Take the case of development. Besides the popular pyro-ammonia, are there not the pyro-potash and the pyro-soda, used by many but unknown to most? Are there not hydro-

quinone and eikonogen, not to speak of the little used but charming ferrous oxalate; besides others still more rarely heard of, which need not be now particularised? The executive should select such processes as they consider most of the members of their particular society are unfamiliar with, and arrange for some one who is thoroughly competent to give a paper or *extempore* explanation with practical illustrations. In a similar way the various forms which negatives take, over and above the ordinary gelatino-bromide on glass, will provide another profitable evening's occupation. Are there not Isochromatic plates, stripping films, celluloid films, and others claiming attention?

As to printing processes, they are almost legion, and yet how few of the tyros have ever got beyond the ordinary silver print? It is not only the amateur "new chum" who must plead guilty to the above impeachment.

At a demonstration of the hot-bath platinotype, at which we were present not long since, amongst the company were "two" professionals; one of some twenty years' standing, and drawing a large salary as an operator; another was an "all-round man and manager of a very flourishing business." It was said to them, as they stood together, "This must be slow for you; a kind of 'twice-told tale.'" "Not at all," said one of them; "long as we have been in the trade, until to-night, we have neither of us ever seen a platinotype developed!" In both cases the work had always been "put out."

But the amateur cannot, or, very properly, will not, do this: it is, therefore, absolutely necessary for him to be conversant with a sufficient range of printing processes, so that he may be enabled to suit a particular negative with that printing process which will yield the best possible picture.

## Letters to the Editor.

### ILLUSTRATIONS TO THE "OLD CURIOSITY SHOP."

SIR,—In a recent column of "Science Notes" there are some suggestions about the route taken by Little Nell in her ever-interesting journey across England, and most readers would naturally suppose that the plan of illustrating it is an original idea in the mind of "F.G.S.," and that it is he who has identified Dudley and Tong with scenes of this pathetic book. This, however, is not the case. Two or three years ago the Postal Photographic Society, at my suggestion, organised an album to illustrate this subject, and invited their members to contribute. I had previously interested Mr. George Smith, of Dudley, in the subject, and pointed out to him that the village of Tong, near Shifnal, coincided with the scene of the death of Little Nell (I originally got the hint from a chance paragraph in the *British Journal of Photography*), and that I had a strong notion that Dudley would be found to answer the description of the town where Mrs. Jarley opened her show, and from which Nell compelled her grandfather to flee by

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot. Soc. of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
Wolverhampton Phot. Soc.: ... ..	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Edinburgh Phot. Soc.: ... ..	Wolverh'ton.	Nov. 10.	Nov. 15.	J. W. Evans, 52, Darlington St., Wolverhampton.
Phot. Soc. of India ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Ventnor... ..	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Liverpool Am. Phot. Assoc.: ... ..	Ventnor.	Jan. —.	—	J. G. Livesay, Cromartie House, Ventnor.
Gloucestershire Phot. Soc.:... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Vienna Club of Am. Phot.: ... ..	Gloucester.	April 17.	April 27.	A. H. Clinch, Bank Buildings, Southgate Street, Gloucester.
	Vienna.	April 30.	May 31.	Carl Srna, VII., Stiflgasse 1, Vienna.

\* English and European exhibits should be despatched not later than Oct. 1st. Mr. J. S. Gladstone, Woolton Vale, Liverpool, will give further particulars.



night. The description of their flight "up the steep hill crowned by the old grey castle," gave me a clue, and, to my great delight, Mr. Smith contributed to the album a photograph of the Town Hall pulled down some twenty-five years previously, "in the middle of an open square with a clock-tower and a weathercock," as Dickens notes. The locality of Dudley being beyond Birmingham (evidently the large town where the canal boat unloads) seems against the theory, but it must be kept in mind that the entire journey was quite aimless, and that Dickens, though sketching his localities "from life," would very likely blend the characteristics of one town with the geographical position and other peculiarities of another place. Mr. Smith's photographs of Tong Church, both outside and in, confirmed the theory that it was here Little Nell found her last rest.

The album was a moderate success; the inherent difficulties of the task of furnishing an ideal "Little Nell" proved too great for those who attempted figure subjects, and a grotesque group of Mrs. Jarley and her famous show (by Mr. H. H. Williams), was the only success in this line.

My own landscape illustrations (all ideal ones, to illustrate short paragraphs) were the most numerous, for I kept the idea in view for some years, and had commenced the work in wet-collodion days.

I know of no other book which contains so many pithy descriptions of English landscape scenes, but many of them, alas! can no longer be found.—Yours truly,

ALFRED WATKINS.

Hereford, September 20th, 1890.

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#### REDUCING LARGE NEGATIVES.

SIR,—May I, through the AMATEUR PHOTOGRAPHER, give to my photographic brethren two hints that will be of use to those about starting the new season, at reducing their larger negatives to lantern slides? Both are probably known to the older workers, but they will be of use to many who are not old in the art of slide making.

The first is, after putting the measured quantities of developer in the developing cup, instead of pouring it, freshly mixed, upon the plate, to first pour it into the dish, shake it together, and then pour back to the cup, wash out the dish, and proceed with the development. This prevents, in a large measure, those markings which are otherwise difficult to account for. The second is, for a reflector, instead of white card or cloth, use a stout piece of bright tin, fixed at the angle which throws through the negative (which requires no ground-glass between) an even lighting. I have found this old dodge reduce my exposures, with Thomas and Fry's plates, from four minutes to less than half a minute, and in some cases fifteen seconds has been ample exposure when reducing from whole-plate negatives, with lens at *f*/16.

—Hoping these may be of use to some, I remain, yours truly,

September 22nd, 1890.

W. T. TUCKER

(Hon. Sec., Loughborough Phot. Soc.)

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#### TONING.

SIR,—I notice again this week the usual complement of queries *re* Toning, Nos. 4,164, 4,170, 4,175, and 4,182, and I cannot understand how it is that someone competent to do so has not given some simple information which, if not putting an end to the trouble of amateurs who put these queries, will at least make these queries less frequent. That I do not profess to be very competent to speak on the subject of toning will be readily understood when I tell you that it was not till quite recently that I ever put a piece of sensitised paper behind a negative; still, what I have to say, perhaps, may not be without interest to amateurs in trouble. My short experience has convinced me that (1) the quality of the negative, (2) the light by which the printing is done, (3) the depth to which the prints are taken, and (4) the colour of the paper on which they are printed, have more to do with the tone than the chemicals used in conjunction with the chloride of gold. I have used borax, acetate, and tungstate toning baths, and I get tones with only the barest perceptible difference upon prints taken from the same negative, no matter which bath is used.

A few days ago I came across vol. i., No. 6 of *Science of Photography* (September, 1888), in which Dr. J. Max Mueller says "that you cannot expect a good print from a poor negative, and so it is with toning. Only a good print from a good nega-

tive will admit of good toning." This should explain to amateurs many of the difficulties in which they find themselves.

It appears to me that the best results are obtained when the prints are taken in as diffused a light or the weakest light as is possible, also that there is a precise depth to which a print should be taken, which can only be judged by experience, but it will be found, owing to the quality of the negative, that it is impossible to get a rich black tone upon it.

If rich black tones are desired, the prints (unless the negative is of the very first order) must be of such a depth when taken from the printing frame that much of the detail will be sacrificed. It also appears to me to be useless to attempt to get rich black tones on the deep pink paper so much affected by amateurs, for this reason, the colouring matter is in the albumen, not on the paper, whereas, as I understand it, the print is on the paper more than in the albumen, the result being that over the black tone on the print on the paper you get a thin layer of transparent pink albumen, making the tone appear brown. The paper to use should be white or pale mauve. I prefer the latter.

Taking the queries in their order, No. 4,164, "G. A. D.'s," is difficult to answer without knowing what he considers a "satisfactory purple hue," and the paper he uses. To 4,170, I would say 40 gr. of acetate of soda to 8 oz. water, and 2 gr. of chloride of gold for each sheet of paper to be toned. To 4,175 I would recommend 1 oz. of borax to 80 oz. of water, and the same quantity of gold as above to each sheet of paper, using 8 oz. of the borax solution. The answer to 4,170 also answers 4,182 "Nimrod." Of course, it must be understood that what I have stated are only the opinions of an amateur, and I am quite prepared to hear every one disputed.—Yours truly,

J. G. W.

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#### LANTERN EXHIBITIONS.

SIR,—It may be of interest to Hon. Secretaries of the photographic societies of the United Kingdom who are making their arrangements for lantern exhibitions during the coming winter, to know that the Boston (U. S. A.) Camera Club are sending us another lecture, entitled "In and About Columbus" (the capital of Ohio), to be here about the end of this month.

This is a gift to the amateur photographic societies of England by the Columbus Camera Club, on the same general terms as "Illustrated Boston" and "The White Mountains of New Hampshire."

There will then be three sets of lantern slides of about eighty each, with accompanying lecture, neatly mounted, in type, of American scenery, in free circulation in this country, and which can be loaned to any society on application to me.—Yours faithfully,

E. M. TUNSTALL (Hon. Sec.).

Liverpool Amateur Photographic Association,  
3, Lord Street, September 20th 1890.

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#### FERROUS OXALATE.

SIR,—I have seen very little mention of this developer, despite the article by Mr. Goddard some weeks ago. Surely the reason cannot be it is not known, or not employed. I have used it with most satisfactory results, and no other developer that I have used seems capable of producing such clear and brilliant negatives. I enclose a rough specimen of a group of friars taken nearly a year ago, the plate of which looks like lasting for ever. Do ordinary amateurs get much better results than this as a rule? I have no chance of comparing notes with other amateurs, or would not trouble you with such a question. I cannot help feeling that if I, a mere tyro, can do this much, and easily, with iron, others who are carefully skilful might do wonders with it. Am I right or wrong, Mr. Editor?

F. M. G.

NOTE.—The print sent is considerably above the average.—ED. AM. PHOT.

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#### THE RICHMOND PHOTOGRAPHIC SOCIETY.

SIR,—I should be glad if you would enable me to state in your valuable columns that the meetings of the Richmond Amateur Photographic Society are held on Fridays, at eight p.m., in Channing Hall, Friar's Lane, Richmond Green, where we shall be very pleased to see any gentlemen interested in photography, and who would like to join the Society.

Major J. Fortuné Nott has been elected President, and I



expect to be able shortly to announce the date on which he will give an address to the Society. Meanwhile, at the past meetings, we have had several interesting discussions on apparatus, different modes of printing, the use of celluloid films, etc., etc., and on Saturday last a contingent of the Society had a successful field-day at Hampton Court, when some good negatives were secured, notwithstanding the rather tempestuous weather.

At next Friday's meeting we propose to have an exhibition of negatives, and Major Nott will occupy the chair.

I shall be very happy to furnish any information as to the Society to intending members, and, with thanks to yourself, I am, yours faithfully,

E. G. RICHARDSON  
(Hon. Sec.)

20, Hermitage Villas, Richmond,  
September 22nd, 1890.

## The Stereoscope.—X.

BY VALENTINE BLANCHARD.

To show the especial importance of the foreground in all stereoscopic pictures, and as a contrast to the Bembridge scene alluded to in the last chapter, we will describe an old stereoscopic slide of the Medway, with Chatham Dockyard in the distance, as seen from the rising ground between Rochester and Chatham. When looked at out of the stereoscope it is a fairly striking picture, but not at all remarkable, for it rarely happens that very extensive views are effective when produced by the camera, and in this one the nearest point where the Medway is visible is nearly a mile distant—but in the stereoscope what a change! It is no longer a view, it is a reality. The beholder is clearly on very high ground indeed, for in the immediate foreground there is a jutting cliff of chalk on which two boys are playing, and yet he looks over their heads to the distant dockyard, where the varied puffs of smoke indicate the bustle and confusion of a toiling colony far away. Distance gives a new charm to the serpent-like Medway, for it is no longer muddy, but bright with life and activity, dotted as it is with craft of almost every conceivable variety, from the mastless two-deckers—so potent for evil in the past, though now so inoffensive in their decrepitude—to the harmless and lazy barges so picturesque with their lumbering yellow sails. The day is a happy one for photographers. The fantastic masses of cumulous clouds overhead clearly indicate one of those special days eagerly sought for but so rarely found. The whole scene is clear and bright, and the distant smoke only gives point and character to the whole. Now, had the picture been taken from the jutting cliff on which the boys were playing, instead of the still higher ground the foreground would have disappeared, and in its place there would have been only middle distance, quite a quarter of a mile away. In fact, three-fourths of the effect would have disappeared.

Wilson, of Aberdeen, one of the most celebrated of the early workers for the stereoscope, was most particular about his foregrounds, and adopted various expedients to make them more effective. We are reminded at this moment of one of his pictures, where, by lowering the camera much nearer the ground than usual, he gained his object. The scene was one of the Scotch lakes. The mountain background was grand, with its varied lights and shadows mirrored in the placid waters of the lake; but the foreground of grass was tame. By lowering the camera, however, he managed to bring some rushes and water-weeds, which otherwise would not have been available, into the extreme foreground, and so destroyed the monotony of the troublesome bit.

From the above description it will be readily imagined that all subjects are not equally effective in the stereoscope, though in all there will be a truth and reality undreamed of

by those who are not familiar with the difference between the same picture as seen in and out of the instrument; and the early workers were eager to select those subjects which best displayed its wonderful powers, such as long vistas, avenues of trees, cathedral interiors, street scenes, etc.—in short, any subject where there was strong opposition of light and shade and good telling material in the foreground to help out the effect.

It is only right to tell the beginner that though for his first experiments he may employ a quarter-plate camera, and move it from right to left as already described, yet to produce many of the most effective subjects a twin-lens camera is absolutely imperative. It is true that for portraiture with a good model the change in the position of the camera for the two pictures may be accomplished without any movement on the part of the model, but for depicting the busy scenes where restless humanity is getting through the fret and worry of the day, or in arresting the fleeting effects of light and shade to be seen at the sea-side towards sunset, then the twin-lens camera becomes absolutely imperative. By the way, perhaps the wonders of the stereoscope have never been better shown than in rendering a well-selected bit of wet, sandy shore, with here and there a stranded boat or lugger to break the monotony. One of Wilson's slides had an immense sale, due entirely to the wonderful effect produced by such slender materials. The scene was the wet sandy flat as seen from Ryde Pier. The time was evidently near sunset, for only a few fleecy clouds were about near the horizon, and the sun looked partly over the edge of one of them not strong enough to conceal his fiery presence. Every little water-ribbed hillock of sand became a nugget of gold, and each little pool left by the retiring sea repeated the fiery cloud, and so made an irregular ladder of glory right up to the sun himself. In strong contrast to all this glory, a man in the foreground was trying to push a boat over the wet sand into the deep water beyond. The telling shadows from man and boat only increased the effect of all the rest, and gave completeness to the whole.

The enthusiastic amateur will be surprised to find after he has been at work some time in making stereoscopic pictures, how apparently slender are the materials out of which he can make effective subjects, if only he has the luck to seize the fortunate moment, and bears in mind the power of the stereoscope in bringing out hidden beauties.

In illustration of the importance of opportunity, another slide may be described, for it will show how the entire success was due to the employment of the right moment.

The scene is simply the bare sands at Margate, with the sea tame and quiet in the distance. There are no boats in view, and the only objects on the shore are two figures, one apparently picking up shells, and the other looking on. Their shadows are strongly shown in the wet sand. Between them is a pool of water reflecting the setting sun. The sun itself, however, is not visible in the sky of the picture, for though near sunset he is still too high up for that. Now, with the exception of the glorious light in the water, and the figures with their dark shadows, the whole scene is monotonously grey, and out of the stereoscope would not attract attention. But when seen in the stereoscope it becomes strikingly beautiful. Everything assumes a new aspect. The beholder looks down into a pool of fathomless depth, and sees the sun a priceless jewel at the bottom. All the grey monotony has disappeared, and a calm summer evening is indicated, but so beautiful in its quiet and calmness. This slide was an immense success, and in constant demand until an accidental scratch on the negative destroyed its beauty for ever.

(To be continued.)



## Photographic Optics.

By C. J. LEAPER, F.C.S.

(Continued from page 206.)

### CHAPTER III.

*Lenses—Converging and Diverging Lenses—Aperture—Principal and Secondary Axes—Optical Centre—Principal and Conjugate Foci—Relation between Conjugate Foci and Size of Image—Determination of Principal Foci of Single and Compound Lenses.*

A LENS is a transparent medium, usually glass, bounded by spherical surfaces, and employed in photography to obtain an image of any object it is desired to photograph.

Lenses are divided into two distinct classes, viz., converging lenses, which are thicker at the centre than at the sides, and diverging lenses, which are thinner at the centre. Thus in the diagram, *a b c* are converging lenses, *a* being a double convex or bi-convex, *b* a plano-convex, and *c* a converging meniscus. The diverging lenses are represented by *d e f*, being a double concave, *e* a plano-concave, and *f* a diverging meniscus.

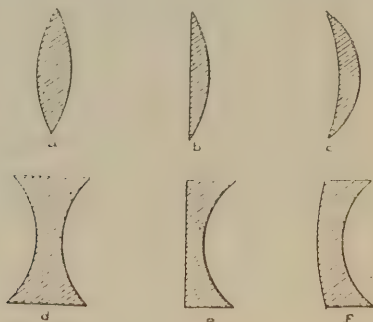


FIG. 10.

Converging lenses are so called because they usually cause rays of light passing through them to converge or bend towards each other. Diverging lenses, on the other hand, always cause such rays to diverge. The centre of curvature of a lens is the centre of either of the spheres of which the lens originally formed part. In fig. 11, *c, c'* are the centres of these spheres, and are therefore the centres of curvature of the lens.

In all lenses having two curved surfaces, the line joining the two centres of curvature, *c c'* in the figure, is called the principal axis. In plano lenses it is the line drawn at right angles to the centre of the plane face.

As a general rule a ray of light will be more or less bent in passing through a lens, but there is one point situated on

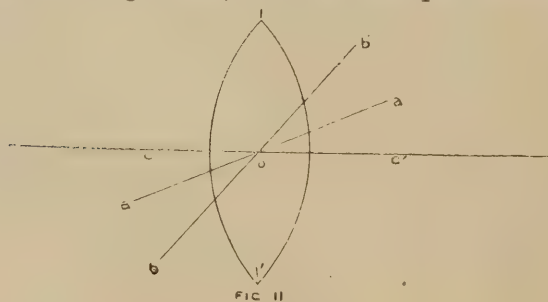


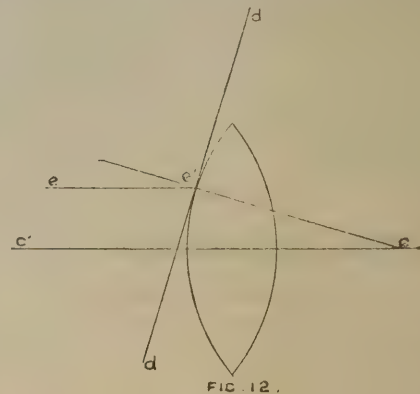
FIG. 11.

the principal axis through which if a ray passes it will not suffer deviation at all. This point is termed the optical centre. In the figure it is the point *o*.

Every axis passes through this optical centre. If such an axis passes through the geometrical centre as well, it is the

principal axis; every other axis, such as *a a'*, *b b'*, is spoken of as secondary.

The distance *ll'* between the two edges of the lens, measured in a straight line, is called the aperture. By using stops or diaphragms we usually restrict this aperture, which



then becomes the diameter of the particular stop we are using.

Lenses are conveniently subdivided into simple and compound. The latter, which are the only ones employed in photography, are made up of more than one piece of glass, which may be cemented together or not. Single lenses, on the other hand, consist of only one piece of glass, and are best studied first.

Such lenses may be looked upon as two prisms placed base to base, or summit to summit, and any ray passing through the lens will be bent or refracted just as it would be in passing through the corresponding prism.

In fig. 12, let *e e'* be a ray of light incident upon the lens, which it meets at *e'*. Draw *c e'* from the centre *c* of the lens, and draw *d' d* at right angles to it. The line *c e'* is the normal to the point *e'*, and *d' d* is the tangent to the same point. The ray *ll'* will be bent in passing through the lens, just as it would be if a plane surface *d d'*, tangent to the curve at the point where the ray of light meets it, had been

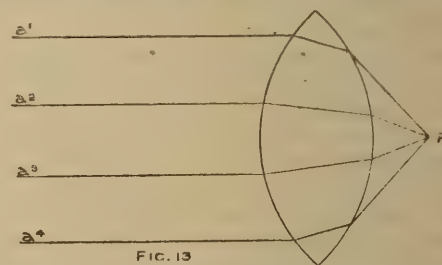


FIG. 13.

substituted for the lens itself. By completing the construction it will be found that a ray of light parallel to the principal axis will cut this axis on the other side exactly at the geometrical centre. Every other parallel ray will cross the axis at nearly the same point, which is called the principal focus or principal focal distance. In fig. 13 the parallel rays *a<sup>1</sup> a<sup>2</sup> a<sup>3</sup> a<sup>4</sup>* are represented as all meeting after refraction at the point *F*; or principal focus of the lens. Theoretically this is measured from the optical centre, but practically with ordinary lenses it is measured from the surface of the glass.

The determination of the principal focus of a single lens merely resolves itself therefore into exposing it to the sun's rays, and receiving the image upon any convenient surface. The distance between the surface and the lens will then give the principal focus, since the rays of the sun proceed from a practically infinite distance and are therefore parallel.

If rays proceed from a source very much nearer than the



sun they will be no longer parallel, but divergent, and the image will be consequently formed outside the principal focus. Thus the rays proceeding from  $f$  (fig. 14) will cross at  $f'$ , further off from the lens than the principal focus F. The points  $f, f'$  are called conjugate or interchangeable foci, for just as an object placed at  $f$  would form an image at  $f'$ , so if the object were moved to  $f'$ , the image would now be at  $f$ .

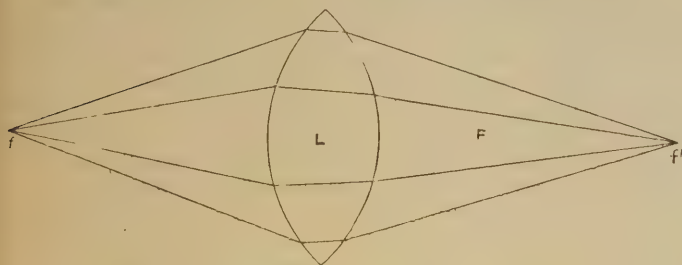


FIG. 14

The relative sizes of the images vary according to a very simple rule. The nearer the image is to the lens the smaller it will be, and *vice versa*.

Suppose, for instance, that in the diagram the distance  $f, L$  is twice the distance  $f, F$ ; then if the object is at  $f$  and the image at  $f'$  the latter will be twice the size of the object.

In the photographic camera the object is at the longer conjugate focus, the image being formed at the corresponding shorter one. In the enlarging camera, on the other hand, the object is situated at the smaller conjugate focus, the image being received on a screen placed at the longer one.

A simple relation holds good between the principal focus and any two corresponding conjugate foci, a relation expressed by the formula  $\frac{1}{F} = \frac{1}{f} + \frac{1}{f'}$ , in which F is the principal focus and  $f$  and  $f'$  the two conjugate foci. By working out the formula, it is easy to see that the principal focus equals the product of the two conjugate foci divided by their sum.

The formula has many uses. In the first place, it gives us two more methods of determining the principal focus of a single lens. We have only to attach the lens to a camera and accurately focus an object situated at a convenient measurable distance, say 10 ft. or so, on the ground-glass. Then by measuring the distance from the ground-glass to the lens and from the object to the lens, and dividing the product of those distances by their sum, we obtain the desired information. Let us suppose that in a particular instance these distances were 10 ft. and 10 in. Then since in 10 ft. there are  $10 \times 12 = 120$  in., we have  $\frac{120 \times 10}{120 + 10} = \frac{1200}{130} = 9\frac{9}{13}$  in. as the focus of that particular lens.

To obtain an image the same size as an object, it is clear that the ground-glass must be equi-distant from both image and object. Let this distance be 10 in. in a particular case. Then our formula becomes  $\frac{1}{F} = \frac{1}{10} + \frac{1}{10} = \frac{1}{5}$ , from which  $F = 5$ , or the principal focus is half the distance between the lens and either the object or the ground-glass. A knowledge of this fact gives us another simple method to determine the focus of a lens. We have only to ascertain by trial at what distance an object of a convenient size has to be placed in order to reproduce an image of its own size on the ground-glass; having ascertained the distance, we need only halve it to get the principal focus at once.

It follows at once from the foregoing, that it is useless to attempt to copy anything the same size as the original, unless our camera racks out to at least twice the focal distance of the lens we are using.

The formula is also exceedingly useful in enlarging. Let us suppose, for instance, that we are about to enlarge four times the size of original, and wish to know where to place the object and the screen to receive the image.

In this case, if  $x$  represents one of the conjugate foci,  $4x$  will represent the other, and, assuming that we use a lens of 10-in. focus, the following equation gives at once the required distances:  $\frac{1}{10} = \frac{1}{x} + \frac{1}{4x}$ , from which  $x = 12\frac{1}{2}$ , which is, of course, the shorter conjugate foci,  $12\frac{1}{2} \times 4 = 50$  being the larger one.

The formula is also frequently useful with optical lanterns to enable us to ascertain how large a picture will be in a room of given length, or what must be the length of the room to obtain a picture of a given size.

Thus if using a 6 in. focus lens we are compelled to place the screen 20 ft. (240 in.) from the lantern, and wish to know what will be the size of the sheet required. Then taking  $x$  as the lesser conjugate focus the equation becomes  $\frac{1}{6} = \frac{1}{240} + \frac{1}{x}$ , from which  $x = 6\frac{2}{3}$ ; and assuming our transparencies to be 3 in. across, the statement:  $6\frac{2}{3} : 240 :: 3 = 117$  in. Consequently the picture will be  $\frac{117}{3} = 39$  ft. across.

Again, supposing that, using a 4-in. focus lens, we wish to obtain a 20 ft. disc, and wish to know where to place the lantern.

Again assuming our slides to be 3 in. across, the disc is to be  $2\frac{2}{3} \times 80 = 213\frac{1}{3}$  times larger than the slide, so that the equation is  $\frac{1}{4} = \frac{1}{x} + \frac{1}{80x}$ , from which the shorter conjugate focus is given as  $4\frac{1}{5}$  in. Clearly the longer conjugate focus will be  $4\frac{1}{5} \times 80 = 324$  in., or 27 ft., which will be the distance from lantern to screen to obtain a 20 ft. disc with a lens of 4-in. focus.

The methods we have already given for finding the principal focus of a lens answer thoroughly when the lens is a single one. With a system of lenses such as a doublet or portrait combination, the method will not answer, owing to

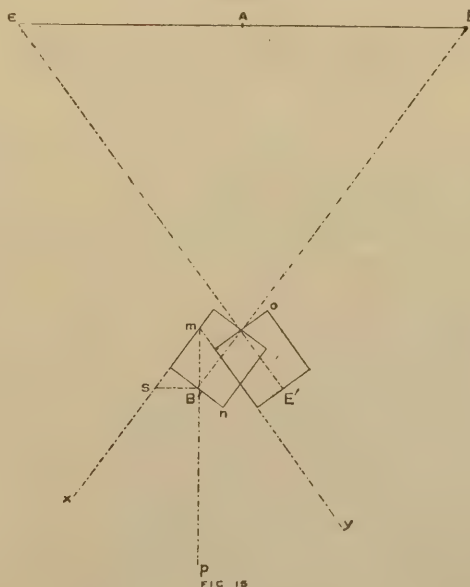


FIG. 15

the fact that we do not know where to measure the distances from. We want to know, in fact, the optical centre of the combination, which as a rule is somewhere between the two lenses. If the combination is symmetrical, the focus can be found in the ordinary way, and the distances measured from the diaphragm slit. If, however, the combination is not symme-



trical, the following plan will have to be adopted, which gives at one operation both the focus of the lens, its optical centre, and the angle of view it includes.

Let E B be two distant objects situated as far as possible from the camera placed on a smooth table over a sheet of drawing paper, and so arranged that the objects form images at the two extremities of the ground glass.

On the centre of the ground glass draw a vertical line, and move the camera into the position  $m B' n$  until the image of B falls upon the vertical line at B'. With a pencil pressed against the side of the camera, draw the line  $m x$ . Now move the camera into the position  $o E'$  until, in fact, the image of E falls upon the vertical line at E', and with the pencil draw the line  $x y$ . Lastly, turn the camera so as to point towards A, and with a compass take the distance between the vertical line on the ground glass, and either of the images. Bisect the angle  $x m y$  by the line  $m p$ , and carry the distance on the compasses along the line  $m p$  until it finally meets  $m x$  at  $s$ . Then the distance  $m B'$  is the principal focus, and we have only to take the same distance with the compasses, place one leg exactly over the ground-glass, and the other leg will fall upon the optical centre of the lens, upon the brass work of which a mark should be made, as it is from this point that all distances are measured.

The angle  $x m y$  is evidently the angle included by the lens under consideration.

Another very convenient plan consists in racking out the lens until the image of any object is depicted full size upon the ground-glass, and carefully measuring the distance from the ground-glass to the furthest point of the lens mount. The camera is now focussed for a very distant object, and the distance between the ground-glass and the furthest point of the lens mount again measured, when the difference between these two distances will give at once the principal focus from which the optical centre is obtained, as in the preceding case.

(To be continued.)

## Photographic Apparatus.

By REV. R. C. MACLEOD.

*Second Prize—Competitive Paper.*

BEING confined as to space, I shall only give my experience of two or three pieces of apparatus.

(1) I shall take my camera stand. I found two great objections to mine when I first bought it. Firstly, it had far too small a head, and secondly, if I wished to carry the camera upon it, as is often convenient, the legs coming up to the edge of the head, it was a very bulky parcel. I had made, therefore, a large wooden top  $7\frac{1}{2}$  ins. in diameter, with the slots into which the brass bolts slip, underneath, instead of at the edge, in such a way that when the legs are on the head, they can fold up parallel to, and almost touching each other. This necessitates the head being very much thicker than usual, but a longer screw overcame that difficulty, and I have now a camera stand which takes my whole-plate or quarter-plate camera equally well, is very rigid, and very easy to carry.

(2) Perhaps it may sound absurd to dignify a piece of brown paper with the name of apparatus, but I have found such an article a very useful means of taking two half-plate or four quarter-plate photographs on one whole-plate. If one uses carriers, one only gets one half or quarter plate in a whole-plate dark-slide, instead of two or four. The division which I tried first was troublesome, and often pulled the back out of focus, under the influence of the elastic used

to prevent the division from bulging, so I fell back on two carefully cut pieces of brown paper, to slip inside the reversing back, one cut for half-plate, the other for quarter-plate. If you are doing two upright pictures on one plate, the lens can be centred by means of the sliding front; if two long pictures, the rising front will centre the lens on the upper one, and a stop will do the work for the lower.

(3) I shall describe my enlarging and reducing apparatus. It is entirely my own work, assisted by the village blacksmith. The bellows are made of black silesian lined with velvet, which I find is not only opaque, but free from any shine. This is tacked to a frame of wood round a pane in the window, on every side except the top, where it is left loose for the admission of a frame, made to take either a whole-plate or a carrier holding a smaller negative. A couple of wedges ensure the negative or carrier being held tightly in position. A prolongation of the bellows at the top tucks over and prevents any light coming into the room. A board blackened on the top, with grooves in the edges, is nailed on to the window-sill at one end, and supported on an upright at the other. A long screw, fastened at the window end, and worked by a handle at the other, moves the lens carrier—an upright piece of wood pierced with a thread, through which the screw passes. The lens carrier has grooves on it into which the front of one of my cameras fits, so that no new screw for the lens to screw into is wanted. The easel is an ordinary school easel adapted to the purpose with an upright board. This is made with common match boarding. A 12 by 10 piece slips out, in case I wish to enlarge on to a plate of that size; out of that again slips an  $8\frac{1}{2}$  by  $6\frac{1}{2}$  piece, so that I can also enlarge to whole-plate. I can pin on paper in the usual way, for bromide enlargements. For reducing, I have a board to carry my small camera, which screws on to the lens carrier. My dishes for developing enlargements are wooden ones, lined with waterproof sheeting, but I intend to replace them with glass-bottomed dishes, which are certainly better for use with bromide paper.

(4) My experiences as to size may be worth recording. I made a great mistake in beginning with a whole-plate outfit. I forgot that many failures must be expected by beginners, and that the expense of failures in plates, chemicals, etc., is just four times with a whole-plate camera what it is with a quarter-plate one. I wish I had all the money I wasted through having a whole-plate instead of a quarter-plate camera to begin with. On the other hand, I should never be content with the latter alone. For lantern-slide work it is of course all you want, but bromide is never to my mind as pretty and soft as platinotype, and if you have only a quarter-plate camera, you are confined to bromide prints for larger work, unless you make an enlarged negative, which is both troublesome and costly. I find my whole-plate and quarter-plate cameras together all I want. My 7 inch Beck lens does the work of a wide-angle lens on my whole-plate camera, and, such is its excellence, covers the plate admirably, and when I want larger pictures I can use bromide paper, or, if the thing is worth the trouble, make an enlarged negative.

I can only in conclusion apologise to the gentlemen who will have to read these lubrications for the trouble I have given them, and express the hope that, though I fear there is little chance of their giving me a prize, they will look on my humble efforts with Christian forbearance.

MESSRS. PERCY LUND AND Co. have forwarded us a sample of Dr. Just's bromide paper, for which they have the sole agency in Great Britain and Ireland. The paper is made in rough and smooth qualities, and the results obtainable are highly satisfactory, very soft tones being easily procured either with the ferrous oxalate or hydroquinone developer.



## Photographing in Iceland.

### VI.—THE ROUND TRIP IN DETAIL.

NONE of the Hecla contingent can ever forget the magnificent view, or rather series of views, from the summit of the great Icelandic volcano—a volcano which has spoken to the world with its huge vomit something like twenty times. The last eruption took place at Hecla proper in 1845. This eruption continued for seven months, representing an output estimated at 14,400 millions of cubic feet, Danish measurement. Hecla lost during this eruption, it is recorded, about 500 feet in height. These facts, with others it is unnecessary here to chronicle, added, so far as we were concerned, to the sublimity of the occasion. The whole east-coast panorama lay at our feet, an endless stretch of snow and ice-capped glaciers. More to the south the Westman Islands, the first point we touched on our voyage, and to which I have already referred, were visible, notwithstanding that they were some ninety miles distant. This extraordinary range of vision indicates how clear and how rarefied the atmosphere in northern latitudes really is. Turning a point to the westward, and looking across the country over which we had travelled, we encountered quite a different picture. Forbidding, black, weird, lava outrunners, looking like so many cinder heaps, with a sprinkling of volcanic stone boulders, contrasted sharply with the brighter panorama to the east. Above all, in the radiant blue vault of heaven, the sun shone resplendently, lighting up the island most brilliantly. It was an experience which inspired us. The great fatigue of climbing was forgotten; we felt more than repaid; we could scarcely tear ourselves away from the fascinating scene. Although we felt the icy cold and piercing wind, we started on our way to the camp down the mountain with regret. We were ravenously hungry, too.

Our descent was much more pleasant work than our ascent, and more entertaining. What with sliding, occasional tumbles and rollings over the frozen ice and snow, and a little cantering, we rapidly neared the spot where we had left our ponies. We found the animals sheltering and impatient. Once on their backs they carried us to our—and their—"feeding" ground in double quick time. About half way home we made a welcome halt at the nearest farm to the foot of Hecla, where we had a refreshing cup of coffee. We asked for bread at this farm, but not a crust was to be had. Imagine the dreadful poverty-stricken and isolated existence of the Hecla "farmers!" Hard biscuits of the ship kind, and wretchedly poor at that, was the only food we could get; but even these in our then famished condition were eagerly accepted and eaten with a relish.

Let me try to convey an idea of the "best" room of this farm, the room in which we had our repast. Have you ever seen steerage berths on a third-rate emigrant ship? That is the kind of thing we found on this "best" room. There were two rows of berths of each side of the room, one row for the men and the other for the women. The passage between the two rows of berths was about five feet wide; the height from the floor to the ceiling was about eight feet. Hanging up on the ceiling was any quantity of dried fish and other articles, the odour from which no fountain of eau-de-cologne could subdue, and which it would take a Zola himself to analyse. I must not forget the peat fire, the smoke from which found outlets by way of the other rooms of the house. We did not stay longer at the farm than we could help, but were interested in the insight that we got into the lives of these poor Icelandic farmers and

their dwellings. After this one experience, though, we avoided them as much as possible.

A few hours' sharp riding, and, crossing ariver for a short cut, we reached camp. This brought us to ten o'clock p.m. Our companions had reserved a substantial meal for us, a meal to which, I need hardly say, we did ample justice. After supper, over our pipes, we recounted our adventures so as to bring the whole of our expedition right up to time and date. Our recital apparently created much regret in the bosoms of auditors. Their souls were troubled at having missed the wonders and beauties of the Hecla ascent. I have already said that the crater of Hecla had never hitherto been honoured with the attentions of a camera-man and his camera. There was a great deal of satisfaction—not to say pride—expressed among our party that Mr. Paul Lange, the leader of our expedition, was the first man in the world to photograph on the extreme summit of Hecla.

I have seen Mr. Lange's negatives of the tour in Iceland, and, to tell the truth, I was very curious to see how the pictures of Hecla came out. It is not disclosing a secret to say that the studies taken under the novel conditions of being over 5,000 feet high, and having to deal with uncommon activity, are among the best and most perfect in detail of Mr. Lange's complete Icelandic collection. But of stop, shutter, activity, and the rest of technicalities more in the future.

By the way, our artist secured Hecla, as he puts it: "I got him with a rosy colour hanging on the cone, the lower slopes a purply-black shade." I introduce Mr. Kelly's remark about Hecla in order to give a more adequate sum-total of how this remarkable and historic volcano loomed before us.

We started away from Hecla for Hrúni on the morning of the 12th at about 10 o'clock. We had been astir for three hours before this, as we had preparations to make for covering a difficult and a trying bit of country. Once in the saddle, we set out over an arid waste of lava dust, frightfully choky and oppressive. Now we were striking further north. After a ride of a few hours we again reached the River Thjorsa at a point where the banks of the river were narrower and the current alarmingly strong. It took three journeys, backwards and forwards, to ferry the cavalcade across this river, and something over an hour in time. However, we got safely across, and had then struck an interesting path. We rode over a series of undulating hills, with curious basaltic crags bursting through here and there. Several small rivers were crossed, one especially, the Laxa River, being splendid both for our camera brigade and our artist. Emerging from a narrow earthquake gorge, the Laxa widens over a bed of shingle and runs through a wide valley. Needless to say this river was well "taken."

After passing the Laxa River the road was much as before, and we arrived at Hrúni at six o'clock, having traversed twenty-five miles since morning. This ride, though dusty, was interesting and easily accomplished. The weather had kept favourable, the sun being out, but a cold wind blowing off the glaciers tempering the heat. In the shade it was chilly. There is a church at Hrúni, and we camped by the clergyman's house, opposite the church. In addition we found three Englishmen here with their guides. They had just come from the Geysers and were bound to Hecla. One of them had a hand-camera which had gone wrong; thanks to our changing tent, he was enabled to repair the mischief and go on his way rejoicing. Fancy being stuck in Iceland with a broken camera! This changing tent, I had almost forgotten to mention, a few days previously had caused our camera men great perturbation of spirit. They found a big rent therein,



which, however, our leader had mended with needle and thread in excellent and flattering seamstress fashion. He was simply invaluable in putting buttons on.

More coffee was the order of the day at Hruni, and while this was being prepared a detachment of our party sought out a hot spring and had a delicious bath—more than delicious after our dusty ride. After dinner we adjourned to Church, and, for the want of a sermon and the usual adjuncts of a church service, tried over some hymns on the harmonium. This was quaint enough in all conscience, but not more quaint than the primitive little tabernacle with its crude and curious gallery on the west side, and the few appointments of the simplest character the little church boasted. It was not nearly so quaint and novel as the fact that at this church there were three generations of the priesthood—grandfather, father, and son—all three of them priests, and all of equal simplicity and faith.

We turned in for the night pretty early, as we had the next day to make the Gull Foss, one of the grandest waterfalls of Iceland; or, as some say, the "Niagara" of Iceland. All of us were ready for a sleep, and what is more, we all enjoyed one. The next morning we were up at 6.30, when we all went to the hot spring to tub. The temperature of the water, I may say, was 120 degrees. At 9.5 we were once again mounted ready for the trail.

(To be continued.)

## Holiday Resorts and Photographic Haunts.

### DEAL, WALMER, AND NEIGHBOURHOOD.

BY WENTWORTH A. J. CROKE.

LYING on the South-eastern coast of Kent, by many considered the prettiest county in England, is Deal, an ancient town and a branch of one of the old Cinque Ports. It is within easy distance of London, there being two lines to choose from—the London, Chatham and Dover from Victoria, and the South-Eastern from Charing Cross. Although under eighty miles from London, it is a three hours run. For full particulars as to times of trains, etc., I must refer my readers to the different railway time-tables and A B C.

Deal is, I think, on the whole, not a place that easily lends itself to photography. The castle, with its moat and bridge, which is now inhabited by Lord Herschell, makes a pretty subject. It should be taken from behind; placing your camera just in front of Gilford House you get the best view of it. The front is not worth taking, as the new part, which has only been recently added, takes away from the picturesqueness of the old castle. It is situated near the south end of the town, a short distance from the naval storehouse, was erected by Henry VIII. in 1539, at the same time and on the same plans as those of Walmer and Sandown.

Sandown Castle is about a mile to the left of Deal, and is now nothing more than a big rock. It was surrounded by a moat, and the entrance was by a bridge, but all this was long ago washed away by the sea. The remains are very unsafe, large pieces continually falling in. Walmer Castle, which stands close to the sea, is some distance from the village. It was built at the same time as Deal, having for its object the defence of the surrounding country, though it is now shorn of all its former warlike appliances, except a few small guns in the garden facing the sea, which are really more ornamental than useful. The castle, having become the official residence of the Lord Warden of the Cinque Ports (at the present time Earl Granville) it has been greatly altered by the addition of a dwelling house. It was here that the "Iron Duke" died on September 14th, 1852. A small room is pointed out to the visitor as the Council Chamber in which Pitt and Nelson planned their glorious naval operation. From the ramparts there is a magnificent unbroken view, both north and south, and on a clear day you may easily see the French coast. Except while the Lord Warden is in residence, the interior is permitted to be viewed.

A handsome pier, built at the cost of £13,000, stretches far out into the sea, and forms a great addition to the town of Deal, making as it does a delightful promenade. Some very good fishing is obtained from the end of the pier, at a cost of 6d. Before going further I will caution my readers about going on the pier with a camera, as a fee of 10s. 6d. is asked for this privilege. It is a most outrageous thing, as it would not be worth it if it was the finest city in the world. As a matter of fact there are no views at all worth taking from the pier, though I cannot understand the absurd charge. The beach and boats offer easy facilities for marine subjects, and the Downs are generally full of big ships of war. The famous Goodwin Sands, which extend in front of the coast line for nearly ten miles, may be visited at low water, and this is a very favourite excursion.

The town itself consists principally of three long and very narrow streets, viz., High Street, Middle Street, and Beech Street, each one being narrower than the preceding one; these three run parallel with the sea the whole length of the town. The bathing is very dangerous, even for those who can swim, as the current is very strong, and the beach at high tide resembles the side of a house. The village of Upper Deal is about a mile westward from the town of Deal; it is a picturesque little village, though the church is one of the ugliest I have ever seen. There are a number of pretty villages within easy walking distance. Waldershare Park, a seat of the Earl of Guildford, which commands an extensive view over a considerable part of Kent, is well worthy of a visit, if only to see the curious little Norman church which is almost hidden by a grove of yew trees. The parish of Ringwould is about three-quarters of a mile to the south of Walmer, where there is a funny little church; from thence across the fields towards the sea is Kingsdown, a little fishing village, which was in years gone by included in the ancient history of the Cinque Ports, when it was described as "the ville and hamlet of Kingsdowne." Now, keeping by the side of the cliffs, which are very fine here, and walking along the beach, which is very rough, you will come upon St. Margaret's Bay, which is very picturesque as you come upon it. Full enquiries should be made before leaving Kingsdown as to the state of the tides. There is both good bathing and fishing to be had here, the lobsters being especially fine. The village is about three-quarters of a mile from the beach. The accommodation at the "Green Man" and also at the "Granville Arms" Hotel, on the cliff, is very good. An omnibus starts from the latter to meet every train at Martin Mill Station, 1½ miles, at a 6d. fare, which is the best way back, the train service being very good.

One of the pleasantest walks from Upper Deal is that to Great Mongeham, which is rather under a mile. The church, which makes an excellent photograph, is a very handsome structure with a tower eighty feet high. Other places worthy of a visit are Northbourne, where resides Lord Northbourne, in Betteshanger House, a fine Elizabethan mansion; Eastry, Woodnesborough, Sandwich, Richborough Castle and Minster.

You can go by steamer to Ramsgate and Dover, etc.; a boat leaves in the morning and returns in the evening.

While staying at Deal, Canterbury should be visited; it is a quaint old town with a fine cathedral and a number of very good "bits" and old cottages. The return fare from Deal is only 1s. 6d.

At Deal there is a fine tennis club, with several very excellent courts. The subscription is 10s. 6d. a month.

In the list of dark-rooms at the use of readers of this paper, I see the Editor includes Deal. During my short visit, Messrs. Brown, of Beech Street, the principal photographers of the town, kindly placed their dark-room at my disposal. I believe plates can be obtained here.

SOCIETY FOR CHELMSFORD.—It is proposed to form a Photographic Society, and it is said that such a society would be of immense interest to many isolated amateurs who, in cases of failure, have no one to turn to for help, and with the winter coming, many a pleasant and instructive evening could be got together. A preliminary meeting will be arranged.

"A PHOTOGRAPHIC Tourist's Equipment; or, How must I be Prepared before Starting?" It will be remembered by some that Mr. Precentor Mann, M.A., contributed an article with this title to the July number of the *Photographic Quarterly*. He has kindly provided illustrations, and it has been reprinted by Messrs. Hazell, Watson, and Viney, Ltd., 1, Creed Lane, London, E.C., and is now published in book form, price sixpence.



## Science Notes.

THE veteran astronomer, Professor Piazzi Smyth, read a paper before the British Association at the recent Leeds meeting on some photographs which he had taken of the ultra-violet portion of the solar spectrum. The photographs which he exhibited were of the region near the lines H, K and L. The definition of the lines was not satisfactory; and Professor Smyth stated that this applied to the original negatives as well as to the enlargements which he exhibited. The cause of this want of definition was the difficulty of focussing the lines, which are invisible to the eye. Their position has to be calculated mathematically, and the focus arranged accordingly.

Those who use pneumatic bulbs, rubber-tubing, etc., know how soon the material deteriorates. Mr. W. Thomson finds that rubber kept in a vacuum does not suffer the least change in a twelvemonth. It may also be safely kept in water, in glycerine, or in coal-gas. These experiments prove conclusively that it is the oxygen of the air which injures the rubber.

The invention of a handy and accurate photometer, or light measurer, is one of the desiderata of photography, and hence it is with interest that we read in *La Nature* for September 6th particulars of two new instruments of this class. The first, invented by M. Lion, is based on the fact that equal surfaces of iodide of nitrogen, preserved under its mother-liquor, and exposed for equal times to lights of equal intensities, evolve equal quantities of nitrogen gas. Two bulbs are connected by a tube containing an index, which is unaffected when the evolution of nitrogen in each bulb is identical.

The second photometer (invented by MM. Seguy and Verschaffel) is based on Crooke's radiometer; but instead of being allowed to rotate, the discs are suspended by a silk fibre and carry an indicator which moves over a graduated circle. Its alum cell, to absorb heat, is placed in front of the instrument, which is extremely sensitive, indicating a difference of light of the hundredth part of a standard candle.

News of a new movement comes to us from America. The Syracuse Camera Club, of New York State, has undertaken the organisation of a national association of amateur photographers, the object of which, to quote from their circular, "is to diffuse a more widely spread scientific interest in the science of photography and to promote social intercourse among amateurs." It is hoped that a "photographic college" may be established in connection with the association. Those interested in the work should communicate with Mr. Arthur P. Yates, President of the club, as above.

The increase in the rapidity of dry plates is remarkable, and plates which show twenty-eight and even thirty on an extended Warnerke's sensitometer are now easily obtained. The matter was brought home to me somewhat forcibly of late when photographing the interior of the crypt of St. Mary's Church, Warwick. The verger of the church had a vivid recollection of a professional worker who—some twelve years ago—gave an exposure of *five days* on this dark interior. I imagine that the plate employed would be a dry collodion one. The last person before myself to photograph the crypt was stated to have given an exposure of six hours, and this was a year or two ago, and, doubtless, upon a gelatine plate. Using Thomas's extra-rapid plates I gave an exposure—much to the verger's surprise—of only three-quarters of an hour; and the negative is fully exposed. For ordinary out-of-door work, however, I much prefer a slow "landscape" plate; the terribly rapid plates are apt to "run away" with one.

On every side I am delighted to hear of systematic "survey" work being taken up. A well-known professor of physiology tells me that he has made the depicting of church towers his speciality, and he has already laid the foundation of what must become a most interesting collection. To classify my own "county-survey" prints, I have lately obtained some of the albums with interchangeable leaves, manufactured by Messrs. Percy Lund and Co., of Bradford, Yorkshire. These are most useful in affording great facilities for classification and rearrangement.

Workers who desire a focussing-glass with an extremely fine surface should buy an ounce of tartaric acid, powder it finely, and shake it up with a small quantity (say three ounces) of negative

varnish, in which it will partly dissolve. Allow the mixture to stand for two days, and then pour off the clear portion. Select a piece of clear glass of the proper size, and coat it with the varnish in the usual way, warming the glass gently before and after. The fine matt surface obtained on the glass by the use of the tartaric acid not only bears high magnification with a focussing-glass, but shows the whole picture clearly. Most focussing surfaces which excel in one of these points fail in the other.

The discovery just made by Colonel Waterhouse that by adding a small quantity of certain of the thio-carbamides to almost any developer, we can obtain a *positive* instead of a negative picture upon a plate exposed in the camera, is of great interest and importance. Photography is already indebted to this able scientist for many interesting discoveries, including the application of eosine—the foundation of orthochromatic photography—but this latest application of his chemical studies is certainly more surprising than any, because it is so very unexpected. The discovery was an "accident" (but such "accidents" only happen to men who seek for them), the immediate object of Colonel Waterhouse's researches being to find a preservative for eikonogen.

F. G. S.

## Notes from the Liverpool Centre.

(By our District Editor.)

I SUPPOSE the Isle of Man may be included in the Liverpool Centre, at least for the time being. I have been over to that popular resort during the past few days, and I mention the fact in these notes purely because I met so many camera men there, although, so far as I know, there is not a photographic society or association. Of course, there are any number of professional photographers on the island, and some of these, I believe, allow amateurs the use of their dark-rooms. The "detective" seems to be the popular camera in the Isle of Man.

The meeting of the Liverpool Association this week is expected to be of especial interest, the business on the agenda paper including, among other items, a paper on "Stereoscopic Photography," by Mr. W. I. Chadwick, the Hon. Secretary of the Manchester Photographic Society, and an acknowledged champion in this charming adaptation of photography. The paper is to be illustrated with black-board diagrams. At the present time, the production of glass transparencies being so simple, no doubt the stereoscope will again become popular, and we may again hear the cry of thirty years ago, "No home without the stereoscope." How the stereoscope, once so largely and favourably utilised, fell into disuse and disrepute owing to vulgar "studies" being so often shown, will be well remembered by old workers in photography.

At the Liverpool University College, on October 14th, a series of lectures on "Photographic Chemistry" is to be commenced by Dr. Kohn.

The Liverpool (1891) Exhibition Committee held a meeting on Monday, this week, when exhibition matters were very minutely and lengthily considered. There are now being posted many thousands of circulars of the forthcoming Liverpool Exhibition of which several hundreds are being sent to Continental workers in photography.

Our Secretaries of societies generally still report rather slack attendances. The winter months' arrangements, however, are rapidly being completed on all sides. There are to be many important practical demonstrations.

A DARK-ROOM.—The proprietor of the Duke Hotel, Kempston, near Bedford, advises us that he has fitted up a dark-room for the use of photographers. Kempston is about  $1\frac{1}{2}$  miles from Bedford.

MESSRS. HARDCASTLE AND Co., of Brighton, have enabled us to test some of their platinum printing-out paper, with which we are much pleased. The image is printed-out so far that it is easy to judge if sufficiently exposed, there being no fading in the fixing bath, which is the usual hydrochloric acid bath, 1 to 80. In the event, however, of a proof being under-printed, it may be brought up to the requisite density by holding it over the steam of boiling water, or even by breathing on it.



## Apparatus.

### A PORTABLE STUDIO.

MR. FRED. J. PRONTING, of Fox Lodge, Tilehurst, near Reading, has favoured us with the following particulars of what would seem to be a very useful accessory for the amateur photographer.

Primarily, the invention consists of four neatly-turned poles or uprights, 7 ft. 6 in. in length by  $1\frac{1}{2}$  in. in diameter. To the lower end of each pole is firmly rivetted a conical spike some 8 in. in length, and on the top of the upright a stout wire spike is fixed for the purpose of securing the laths which hold the top of the tent rigid, and also carry the screen and shade cloths. Two of

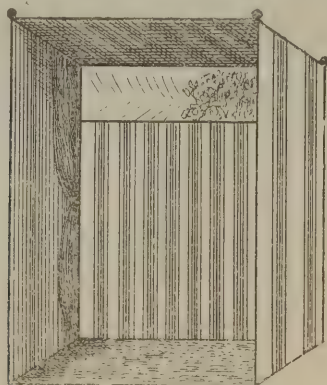


FIG. 1.—Complete as studio, with shade cloth, screen cloth, and background; also showing method of fixing supports, by means of long iron spikes.

the poles have stout gun-metal brackets, in which the background roller works, and all are provided with screw-hooks for holding the cloths in position. The ground having been marked out to a square of 5 ft., suitable holes are made at each corner, and the iron-shod end of the uprights firmly inserted. The two side-cloths—white and black respectively—are sent out ready for fixing, the bottom lath being the one with cords, whilst the top fits over the spikes at top of uprights. The roof having been put



FIG. 2.

Designed a double debt to pay:

A studio when at work, a tent when we would play.

Screens pushed back, and background rolled up. Or they might be altogether removed.

on, the background may be hung on its brackets and rolled down, and the studio is quite ready for the sitter.

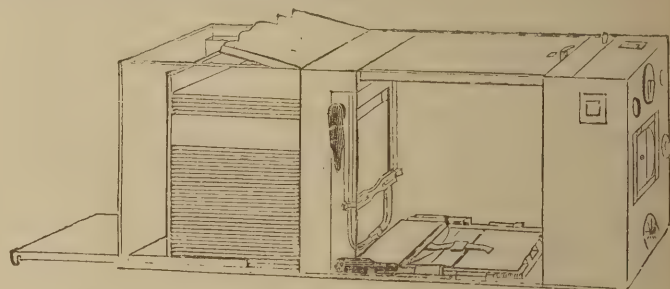
For exposed positions it is, of course, best to use only a plain or graded background; but where advantage can be taken of the shelter of a wall or a few trees, very good results can be obtained with an interior of exterior. The background supplied with the outfit is of paper, painted in two shades of grey, with lighting as may be required; being strengthened with fine canvas, it will

with average care, last as long as the most expensive cloth. It is mounted on a stout roller, with brass ends, is kept taut by a glued-in lath; and when fully extended covers a space of 7 ft. 6 in. by 5 ft. Everything rolls up compactly when not in use; and, on the other hand, when erected, the tent is neat and workmanlike in appearance, and very effective in its control of the light. It can be had in a variety of styles, to suit the tastes and pockets of purchasers. That described is the cheapest form, designed to sell at about 45s, but another partakes of the dual character of tent and studio, by the addition of a striped canvas covering, by means of which the structure can be quickly converted into a tasteful little lawn tent when not required for photographic purposes. The average amateur will doubtless be content with the simplest form of this aid to artistic portraiture.

### CROUCH'S "PRESTO" HAND-CAMERA.

MESSRS. HENRY CROUCH, LD., of 66, Barbican, London, E.C., have given us an opportunity of inspecting their "Presto" camera, manufactured by them under Gray's Patent, No. 3790, 1890.

This camera differs from any other that we have seen in the arrangement of storing and exposing plates. The chamber containing the plates holds twenty-four in sheaths laid one above another horizontally. The drawing of a shutter at the bottom of the camera allows one plate to drop into a chamber, the pushing in of the shutter carries the plate into a metal frame, which grips it, and by the action of a lever the frame and plate are turned up and received into another frame, where it remains ready for exposure. After being exposed, the frame holding it is turned from the vertical to the horizontal plane, the plate is released, and a tip of the camera allows it to pass into and on to the top of the chamber holding the plates. This operation is continued until all the plates have been used.



This hand-camera is of excellent workmanship and finish. It is fitted, preferably, with Crouch's single landscape lens of fixed focus, fitted with Iris diaphragm. The lens is of  $5\frac{1}{2}$  focus, and works at  $f/11$ , and gives everything in focus over 8 feet. Each camera has an instantaneous shutter, safety light-screen, and two finders. We have found the camera and all the parts admirably made, the well-known standing of the firm being a warranty that the camera is what it professes to be. We have some specimens at our office taken in the camera which will bear comparison with work done by any single lens in the market. The "Presto" hand-camera, as described, is sold for £6 6s. The makers will, of course, give more particulars than the limited space at our disposal permits. Their carefully prepared illustrated catalogue of lenses, cameras, etc., etc., should be in the hands of all workers in photography.

**PIZZIGHELLI PAPER.**—MR. C. A. Rudowsky, of 3, Guildhall Chambers, Basinghall Street, London, E.C., writes: "I should like to bring to your notice that, owing to the high price of platinum, the manufacturers of the Pizzighelli paper (Dr. Hesekei and Co., Berlin) have been compelled to raise the price about 33 per cent. The same makers have introduced at the same time a printing-out platina toning paper, which they call 'Dr. Hesekei's "Thula" Direct Printing Paper.'"

**DERWENT PLATES.**—Having bought the whole of the stock in the hands of the Official Liquidator, we offer the same for immediate disposal, at 50 per cent. off list prices, for cash. Sample dozens for testing at same price, postage extra. Full particulars on application. STATION AND COOPER, Dealers in Photographic Materials, 15, Cheapside, Derby.—[ADVT.]



## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BRAMLEY AND DISTRICT PHOT. SOC.**—The monthly meeting was held on the 9th inst. A paper on "Opals and Transparencies" was given by Mr. W. S. Baxter (Vice-President). Magic-lantern slides, negatives, and prints were shown by the members, and some were selected for the Society's album presented by Messrs. Crossley and Nicholson, of Rodley. The work done showed a decided improvement, and was far superior to any that has been shown since the Society's commencement.

**ENFIELD CAMERA CLUB.**—At a meeting held on the 17th inst., the President (Mr. D. G. Pinkney) in the chair, a paper was read by Dr. F. Cresswell on "The Chemistry of Photography." Dr. Cresswell began by saying that many substances undergo change under the influence of light; for instance, carmine slowly decolorises; on the other hand, plants, if grown in the dark, are colourless, but become green by exposure to light. The changes which take place in photography are chiefly (1) the reduction to the metallic state of haloid salts of silver; (2) the reduction of the persalts of iron to protosalts; (3) the reduction of chromic acid to chromic oxide. Of these the first is the essential of Daguerreotype, Talbotype, collodion process of Archer, dry plates, bromide and silver printing, and all the modifications of gelatino and chloride printing-out emulsions, such as aristotype, Obernetter, etc. The second is the basis of platinotype, ferro-prussiate, cyanotype, and the new kallitype process—the latter, Dr. Cresswell thinks, will have a good future, now that the price of platinum is so high, and the supply so limited, and as results almost equal to platinotype appear to be obtainable by it. The third is used in carbon or autotype printing, the dusting-on process, and most of the photo-mechanical processes. The object of albumenising the paper or adding gelatine to the salting solution in the case of plain paper, is to retain the silver chloride on the surface and prevent waste by its sinking into the fibre. It is usual to tone prints with a solution of chloride of gold. The subchloride will remove chlorine from the gold, which consequently is deposited and chlorine of silver is formed, hence the reason for toning before fixing; it is perfectly easy to tone after fixing, but the result would be a fresh formation of chloride of silver, which, not being soluble in the toning bath, would be liable to blacken and deteriorate the print. In the fixing bath the chloride is removed at the same time as that silver which was unacted on by light. The use of borax, acetate, phosphate, or tungstate of soda in the toning bath which have a slight attraction for chlorine, reduces the trichloride of gold to the state of monochloride, and thus one molecule of subchloride of silver deposits one atom of gold instead of its requiring three molecules to deposit this amount. The image is therefore less weakened than it otherwise would be. The state of aggregation and also the colour of the deposit is modified by the special salt used. After describing the Daguerreotype process, the reader went on to say that an emulsion differs from a solution in that it consists of particles, not dissolved, but merely suspended in a more or less viscid fluid, milk being a good example of an emulsion. Photographic emulsions require to be boiled for a certain time; the molecules appear to become disturbed in the same way that they do under the influence of light if the boiling is too long, and a plate coated with such emulsion will fog on development without having been exposed. Speaking of developers, the reader mentioned that gallic acid was a feeble reducing agent, but now pyrogallol, which is really a triatomic alcohol, hydroquinone, and pyrocatechin, which are its allied diatomic alcohols, are far more generally used; and now eikonogen, which is merely a fanciful name for amido-B-naphthol monosulphate of soda, seems likely to be very generally used where softness is the object in view. All these tend in oxydation to produce more highly acid compounds, and hence the determining and accelerating effect of the alkali which is used in conjunction with them. The restraining effect of a soluble bromide in the developer is not easy to explain satisfactorily. It is possible that it offers a distraction, if one may so term it, almost yielding its own bromide to assist in oxydising the developer, and possibly tending also to restore the bromide of silver to its primitive

condition and suppress the latent image. Alum tends greatly to interfere with the absorption of water by gelatine, and its consequent swelling; it also, especially in the presence of free acids can dissolve out the brown stain left by some of the oxydation products of pyrogallol; hence a bath of it is recommended, either before or after fixing, or both. Many makers now add a small quantity of chrome alum to the emulsion, which is far more active than ordinary alum, and prevents the film swelling, and consequently blistering and frilling. If to the fixing bath some bisulphite of soda, commonly called acid sulphite of soda, be added, it will completely bleach all pyro stain, and what is more, the hyposulphite of silver and soda formed in fixing will remain dissolved indefinitely, instead of being deposited as a dirty brown mud as usual, the fixing bath remaining for weeks perfectly clear and bright. It is a very good plan with both plates, and emulsion paper after fixing, to immerse them for about fifteen minutes in a 2 per cent. or 3 per cent. solution of chrome alum, this causes the gelatine to shrink and eliminate most of its absorbed water, and also renders it quite insoluble, and further it destroys any hypo which may have been left in the film. After this treatment it is possible to dry a plate at the fire without fear of the film melting; the film when dry is exceedingly hard and horny. The plate must be washed before and after using the chrome alum, but a much shorter time will be sufficient, as no hypo can remain for more than a few minutes in its presence. The evening closed with a hearty vote of thanks to Dr. F. Cresswell.

**FAIRFAX AM. PHOT. ASSOC.**—On Monday, the 15th inst., an exhibition of landscape touring pictures, illustrative of the various styles of photography, took place in the rooms and under the auspices of the association. The collection, which comprised nearly 100 pictures, was kindly lent by the Editor of the AMATEUR PHOTOGRAPHER, and comprised some splendid specimens of the photographic art, including examples of the platinotype, bromide of silver, and aristotype processes. The exhibition was viewed by a large number of visitors.

**HOLBORN CAMERA CLUB.**—At the meeting on the 19th inst., Mr. W. Baker gave a lecture, illustrated by lantern-slides, on "How I Spent my Holidays in Derbyshire and Yorkshire." Views of the following places were shown: St. Pancras, York, Buxton, Leeds, Matlock, Scarborough, Dovedale, Covedale, Monsal Dale, Eyam, Haddon Hall, Chatsworth, Holbrook Mines, etc. After a vote of thanks to Mr. Baker several slides by Messrs. Chang and Bayston were shown. This evening (Friday), lantern night, "White Mountain" set.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—A meeting was held on the 19th inst., at 8 p.m.; Mr. Alfred H. Miles, Vice-President, in the chair. The prints sent in for competition were exhibited and criticised by the members, and the negatives of the first, second, and third pictures handed round for examination, particulars as to development, etc., being given by each individual member. The following resolution was moved by Mr. Stodart, seconded by Mr. James, and carried unanimously: "That the best thanks of the members of the Lewisham High Road Camera Club be conveyed to Mr. Charles W. Hastings, for his kindness in undertaking the judging of the silver prints sent in for competition on the 4th inst., and for placing the AMATEUR PHOTOGRAPHER Bronze Medal at the disposal of the Camera Club." A letter was read from Mr. C. E. O'Neill, of Brass River, West Central Africa, promising to send some prints for criticism. The members were occupied for a considerable time in discussing the arrangements of the syllabus about to be printed, and several promises were obtained to fill up the evenings. Several questions produced from the question box were discussed at some length, and members then proceeded to examine some very fine platinotype prints exhibited by Dr. Dashwood. The next meeting takes place October 3rd at 8 p.m.

**LIVERPOOL AM. PHOT. ASSOC.**—At the ninth ordinary meeting on Thursday, the 25th inst., a report was made by Mr. William Tomkinson on the excursion to Haddon Hall. There was an exhibition of specimens of Vevers' transparency paper, Kallitype paper, etc., by Mr. J. Macdonald Bell; of the Aptus aluminium lenses, by Mr. Sharp (Messrs. Sharp and Hitchmough); and the Hon. Secretary exhibited some results obtained with a new silver paper supplied by the Universal Sensitised Paper Company. Mr. W. I. Chadwick, Hon. Secretary of the Manchester Photographic Society, read a paper on "Stereoscopic Photography," illustrated with blackboard diagrams, and exhibited a number of stereoscopic transparencies.



**LONDON AND PROVINCIAL PHOT. SOC.**—At the meeting on the 25th inst., a discussion on "Restrainers, Physical and Chemical," was opened by Mr. Mackie.

**MORLEY AND DISTRICT AM. PHOT. SOC.**—A meeting of the above Society was held on the 16th inst., Mr. J. Richardson in the chair. A letter was read from Lord St. Oswald, granting the Society permission to photograph at his residence at Nostell Priory. It was then resolved to take advantage of the same on Saturday afternoon, September 27th, the party to travel by waggnette. Sets of prints were shown by members who are competing for a diploma.

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES PHOT. ASSOC.**—On Thursday, the 18th inst., the first and last out-door meeting for the season was held at Gilsland, Lanercost, and Naworth, under very favourable meteorological conditions. This season the Association has been so unfortunate as to have each of its previous outings prevented from being held by wet weather. Starting from Newcastle at 6.25, it was found on reaching Gilsland that there was a muster of ten members, as well as two from the Haltwhistle Society and one from Southport, present by special invitation. Fourteen cameras, ranging from 12 by 10 to stereoscopic and quarter-plate, were in active operation all day, the net result being 113 exposures.

**NORTH KENT AM. PHOT. SOC.**—The usual monthly meeting of this society was held on Thursday, the 11th inst., Mr. I. C. Johnson, J.P., President, in the chair. An excursion was organised for the following Thursday. Accordingly on that date the members proceeded by train to Aylesford, and having visited Aylesford Priory, Preston Hall, and Aylesford Bridge, they walked up the bank of the Medway to Allington, when the castle and the lock afforded material for views. From Allington they continued to follow the river as far as Maidstone, returning by train to Gravesend the same evening. A most enjoyable day was spent, and a number of plates were exposed.

**SOUTH LONDON PHOT. SOC.**—The usual meeting was held on Friday, the 19th inst., Mr. J. W. Edwards in the chair. Five members were elected, and five proposals for membership received during the evening. Mr. F. W. Hart gave the members a

practical demonstration in "Flash-light Photography." He brought with him an assortment of lamps and several ingenious pieces of apparatus for discharging a number of lamps simultaneously. Having found soon after the introduction of his lamps the great need of suitable supports, he contrived a series of light rods, which are made in short lengths so as to be portable, which serve their purpose excellently, and in addition easily make firm supports for lantern screens, or, with the addition of curtains, are transformed into an open-air studio. Mr. Ranson showed an ingenious folding copying apparatus of his own design, suitable for enlarging, reducing, or lantern-slide work. On Saturday, the 20th inst., an excursion was made to Epping Forest, and a pleasant afternoon was spent; although the wind was rather high, there was an excellent light. Members are reminded that the next meeting, a lantern night, will be held at Hanover Hall, Rye Lane, S.E., on Friday, October 3rd.

**STOURBRIDGE AND DISTRICT PHOT. SOC.**—This society, recently formed and already numbering sixteen members, held its first monthly meeting at 151, High Street, Stourbridge, on Wednesday the 10th inst. Several views, taken by the members since the inaugural meeting, were shown, and an interesting discussion took place. Work was set for the ensuing month, and the meeting terminated. Persons desirous of joining should apply to the Hon. Secretary, Mr. F. W. Biggs, from whom all particulars may be obtained.

**TOYNBEE CAMERA CLUB.**—On Saturday, 20th inst., the Toynbee Camera Club held a very successful exhibit of photographs and lantern-slides at Toynbee Hall, Whitechapel, in connection with the opening meeting of the winter session of the Toynbee students. About 200 prints by members from negatives taken on the various excursions of the Club during this season were artistically arranged upon the walls of the room. At intervals during the evening a collection of slides kindly lent by the Editor of the AMATEUR PHOTOGRAPHER, and a few by members, (about 250 in all) were exhibited by means of the oxy-hydrogen lantern. The next lantern evening of the Club will be held on Thursday, October 16th. Members of neighbouring clubs can obtain tickets on application to the Secretary, Mr. A. E. Birch, 35, Heathland Road, Stoke Newington.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 4, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

**4183. Walking-Stick Stand.**—Would any reader kindly tell me of a good, steady walking-stick stand for a hand-camera? I should think one might be made on the principle of a double tripod, like the three-legged camp-stools, as I only want something stand the camera on, not to fasten it to.—G. H.

**4184. Chagford.**—I am going to Chagford (Devon) at the beginning of next month, and should be greatly obliged if any brother amateur would kindly tell me the chief things to photograph in that neighbourhood, stating the best time (morning or afternoon) for each.—CORNUBIENSIS.

**4185. Hand-Camera.**—I wish to make a magazine camera for six or more lantern plates. Would any brother amateur kindly furnish me with hints as to the best way of proceeding, also of a simple changing arrangement free from complications?—THE TURTLE (address with Editor).

**4186. Time Shutter.**—Would anyone kindly inform me of the best way to test the time arrangement of my time shutter, as I am not certain as to whether it works up to its scale?—THE TURTLE.

**4187. Cloud Printing.**—How should I manage to mask the sky for printing in clouds, so as to leave no hard edges? Also, I have a ship photograph; I want to print in a generally cloudy sky, which will show between the detail of rigging. How do I manage?—CLOUDED.

**4188. Best Developer.**—What is really the best developer suitable for every kind of work, one that is thoroughly reliable?—MORIANNI.

**4189. Eikonogen.**—Can anyone inform me which is the best eikonogen developer for ordinary plates and work?—MORIANNI.

**4190. Dresden.**—I intend spending the winter in Dresden, and should be obliged by any of your readers giving me information about dark rooms, plates, chemicals, etc.; also about interesting places worth visiting about there. I shall take some rolls of Rastman's films with me, and try and get plates there.—H.

**4191. Eikonogen.**—Does it deteriorate? I obtained ½ kilo. On opening box the crystals were colourless, save in centre of box, where a core about size of a pea was of a dirty olive-green colour. First quantity of developer made up was of a light straw colour. When next I opened box the whole contents had turned to dirty olive green, and developer when made up was emerald green in colour. Any remedy?—LLEWON.

**4192. Tungstate Soda Toning Bath.**—Does it bleach greatly? Should prints be deeply printed? My trials with it give me following results:—Moderately deep prints—seven minutes toning bath, twelve minutes hypo, give yellowish sepia-coloured pictures; with ten minutes toning bath a cold slate colour. Deep printing—ten minutes toning bath, twelve minutes hypo, very dark walnut-brown pictures, approaching black, but harsh. The toning bath appears to bleach light prints, but does not do so to deep prints.—LLEWON.

**4193. South Kensington.**—Is photographing at night practicable at the South Kensington Museum (Sculpture Department)? I would use a Talmer hand-camera, which has a lens working at  $f/11$ . Are

rapid plates a necessity? Any hints would be most acceptable.—F. B. SMITH.

**4194. Hydroquinone, Keeping Powers.**—Will some one kindly tell me how long the hydroquinone, made according to the Ilford formula, will keep, and also if it ought to be kept in the dark?—H. I. C.

**4195. Stains on Silver Prints.**—Would anyone kindly inform me what is the cause of silver prints being stained with hyposulphite of silver? Is it likely to be caused by insufficient washing before or after toning?—J. A. H.

**4196. Lantern Screen.**—Which is the most portable, most easily and rapidly fixed in places not prepared specially for it, and at the same time cheap, size about 12 ft. square?—A. F. K.

**4197. Drayton Developer.**—What is the Drayton developer composed of, and what is the strength of it?—R. A. R. BENNETT.

**4198. Portrait Lens.**—In Ross and Dallmeyer's lists certain lenses are stated to require a stated distance between subject and lens. Will anyone explain why this is, and whether portraits cannot be taken with these lenses when there is less distance than that stated.—FOX.

**4199. Defects in Prints.**—In using ready sensitised paper I am troubled by having some prints coming up all over in small blisters after fixing. When dry, the blisters go down, but leave small bluish spots. Will some one tell me the cause of this, and how to remove it?—BLISTERS.

**4200. Pizzighelli Platina Paper.**—Having utterly failed to get any satisfactory tone when using this paper, I should be glad of any hints from those who have been successful. I have followed most conscientiously the instructions issued with the paper.—H. E. G.

**4201. Photo Lithography.**—Will some one say where to get practical particulars regarding the above?—F. M. G.

**4202. Cheap Reproduction.**—Can some one tell me the best and cheapest way to print or reproduce 2,000 copies of a photograph?—F. M. G.

**4203. Views Wanted.**—Can any brother amateur lend me views of the Bridge of Alan and Wallace's Memorial, Stirling, Scotland? Will exchange views of North Wales or Scotland.—H. ROBERTS.

**4204. Machinery, Lantern Slides of.**—Can anyone inform me where I can purchase or hire slides for a lantern, showing views of machinery and materials used in woollen manufactures, for the purpose of illustrating a paper to be read describing the process of manufacture?—S.



# QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.  
 18th.—Nos. 4009, 4020, 4027.  
 25th.—Nos. 4036, 4045.  
 Aug. 8th.—Nos. 4061, 4066.  
 22nd.—Nos. 4089, 4090, 4096, 4100, 4104.  
 29th.—Nos. 4116, 4123, 4124, 4125.  
 Sept. 5th.—Nos. 4129, 4131, 4133, 4136, 4137, 4141, 4143.  
 12th.—Nos. 4149, 4150, 4151, 4152, 4153, 4154, 4157.  
 Sept. 19th.—Nos. 4161, 4163, 4166, 4167, 4168, 4172, 4173, 4174, 4179, 4180.

## ANSWERS.

4076. **Focus of Lens.**—The focus would be (approximately) twice the radius of the convexity of the lens, or 3 in., and in either case would be the same if measured from the centre of the convex surface.—THE SMITH.

4093. **Reducing Fog.**—Better take another negative. If you cannot do so, try the following formula (Howard Farmer's):—

Red prussiate of potass (saturated solution) ... .. 1 part.  
 Hypo. solution, 1.5% ... .. 10 parts.  
 Reduction commences as soon as the mixed solution is applied, and must be carefully watched. Local applications may be made with a soft brush, and the plate must be thoroughly washed afterwards.—THE SMITH.

4111. **Stops.**—What is the focus of your lens?—THE SMITH.

4113. **Intensifying.**—I think the stain you speak of is caused by insufficient fixing of the negative. You will, however, find the stain pretty well fixed. *Experientia docet.*—THE SMITH.

4127. **Aristotype Toning.**—Print deeper, and do not use your toning bath too strong.—THE SMITH.

4145. **Mounting Glazed Prints.**—Use as little of the mountant as possible, and on the edges or corners only.—THE SMITH.

4148. **Lens for South Australia.**—A 6 in. or 7 in. focus single lens by Dallmeyer, Taylor, or Wray, and a Thornton-Pickard shutter.—THE SMITH.

4155. **Swing Back v. Sliding Front.**—If the lens covers well, it is most advantageous to use the rising front, as, if the camera be tilted upwards and the back levelled, it will be found that the part of the plate which receives the light from the foreground is nearer the optical centre of the lens than that which receives the light from the distance. This, of course, tends to throw either one or the other out of focus, and a very small stop must be used to remedy the defect; whereas, with a lens which will cover a larger-sized plate, the camera may be kept level and the rising front used (within certain limits) without being obliged to use such a small stop. If the lens only just covers the plate, the rising front cannot well be used, and all the work must be done by the swing-back.—THE SMITH.

4158. **Development.**—I cannot recommend you to use the iron developer in your case, as its power of compensation for over or under exposure is so limited. Eikonogen, quinol, or "dirty old pyro" will give you much more latitude, particularly the first-named. Commence with a developer diluted to half strength, and if the image begins to come up in about 90 seconds, well and good; if not, drain your plate and apply the normal developer. Should the plate still prove obstinate, pour a little of your alkali (whatever it may be) in the measure, and add the solution from the plate to it, and then return to the dish, repeating the operation if necessary. If, however, the image comes up quickly in the diluted developer, add some bromide solution in the same way.—THE SMITH.

4159. **Shutter.**—"Nemo" cannot do better than use the simple and accurate way of calculating the speed of his shutter described in the *Photographic News Almanac* for 1890, page 109. It would take up too much space to describe the method here. Of course, the speed will vary in accordance with the India-rubber bands "Nemo" uses. Could not Messrs. Lancaster and Son supply him with the information required?—B. DAVIDSON.

4160. **Church Interior.**—If it is a photograph you want very much, or cannot do again, I should advise your taking two plates, and, as you say it is very dark, I should use f/8, and give two exposures of a quarter of an hour and twenty-five minutes respectively. I do not know which plates you use; but this would be about it with Iford ordinary. Be sure you back your plates first. Develop in the ordinary way.—W. A. J. CROKE.

4162. **Dark-Room Lamp.**—I should advise your consulting dealers' catalogues. Look down "Fallowfield's Annual for 1890." You will see several cheap and new patterns. Why not use a candle lamp? the best being the hock-bottle shape; it gives about the best light, and only costs you 1s. 6d.—W. A. J. CROKE.

4162. **Dark-Room Lamp.**—Make one yourself. Get a decent size box, knock out front and back, cover front with canary medium (paper), and paste a piece of orange tissue paper at back, so as to allow it to hang down loosely. Get a small colza-oil lamp (such as used in bicycle lamps will do), and place it in

box by raising the orange paper, then place your improvised lamp against a wall (not quite closely). This allows sufficient draught to keep it burning. You have thus a safer and far more pleasant light than ruby glass, and I am quite sure will never go back to the latter. It is not safe to use a paraffin lamp within the box, as the draught is not sufficient and you would probably end with an explosion and grand illumination. If, however, you particularly wish to use paraffin, you can easily arrange your box so as to supply a current of air from bottom to top.—B. DAVIDSON.

4164, 4170, 4175, 4182. **Toning, etc.**—See letter upon "Toning," in this week's issue of AM: PHOT. 4164. **Toning Solution.**—Possibly your toning bath is made up badly. I do not care for the acetate. If you care to try the borax, which will give the tones you require, I can recommend the following simple formula:—

Borax	...	...	...	...	1 oz.
Water	...	...	...	...	3 quarts

Dissolve your borax in about 10 oz. of boiling water, then make up to 2 qt. Take 8 oz. of this borax solution to 1 gr. of gold, which is sufficient to tone one sheet of paper. The bath can be used immediately it is mixed.—W. A. J. CROKE.

4164. **Toning Solution.**—Try the following: Add 2 per cent. of salt, dissolved in water, and then filtered into your toning bath. Don't wash your prints on any account, but put them directly into this bath. You will obtain fine purples, or, in fact, any tone. Don't over-print as much as you would in the ordinary method. Your prints first turn bright red and gradually tone to purple. I have no experience with the salt bath made up with bicarbonate of soda and acetate, but am told it will work well. With the borax bath it works splendidly. The less albumenised your paper is the better.—B. DAVIDSON.

4165. **Pinholes on Negatives.**—Pinholes are caused by dust. You should be careful to brush over your plates with a broad camel's-hair brush before placing them in the slides. You may possibly be able to touch out the holes on the negatives, but if they are very numerous I cannot predict any great amount of success for you.—W. A. J. CROKE.

4165. **Pinholes on Negatives.**—Try a flat camel-hair brush. Immediately you pour on your developer, go over the whole plate gently, but quickly, with the brush. Keep your developer moving during the process of development. If you soak your plate in water beforehand, go over it gently with the ball of the middle finger, providing it is not horny. There is no fear of damaging the film. Dust out your slides well; dust your plates before placing them in the slides, dust them when you take them out again. So much for prevention. To remedy those plates which show pinholes, take a fine sable brush and touch out the holes with sepia. With a little practice you will get so perfect that they will not be seen. Filter your solutions.—B. DAVIDSON.

4169. **Copying.**—If "Ivy" will communicate I shall be pleased to give details of an arrangement by which I have succeeded in copying cartes-de-visite, full size, with quarter-plate Instantograph single lens.—H. W. B.

4169. **Copying.**—Presuming that copying same size is implied, it is necessary that the camera should rack out to twice the focus of the lens used. If your camera only opens out to 9 ins. you cannot do what is required with a lens of more than 4½ in. focus.—THE SMITH.

4169. **Copying.**—You do not state the focal length of your lens. Probably your camera does not extend far enough. To enlarge from 3 by 2 to 6 by 4 you must place the carte to be copied at a distance from the lens centre equal to one and a half times the focal length, and the ground-glass must be three times this length from the lens centre. Thus, with a 5 in. lens these distances are 7½ and 15 in. respectively.—CLIFFORD E. F. NASH.

4170. **Toning Bath.**—See answer to No. 4164.—W. A. J. CROKE.

4171. **Weights.**—I suppose you want to know the weights in grains, etc., of certain coins. If you have not yet lost your weights, why not weigh some coins? As all coins are more or less worn, no two of the same denomination would probably weigh quite the same.—CLIFFORD E. F. NASH.

4171. **Weights.**—"G. H. G." will not be very far out if he takes the following general weights: one halfpenny, about 85 gr.; one penny, about 160 gr.; threepenny piece, about 20 gr.; sixpenny piece, about 40 gr.; two-shilling piece and half a crown, respectively 165 gr. and 190 gr. I have often taken these weights, and have never found any appreciable difference in my solutions. The coins are taken as fairly worn.—THE TURTLE.

4175. **Borax Toning Bath.**—Use the salt as recommended in answer 4164, add to

Borax	...	...	...	...	1 oz.
Gold	...	...	...	...	1 gr.
Water	...	...	...	...	8 oz.

This will tone one sheet. Don't warm the bath or wash the prints before toning. Or try the above bath without salt, but in that case warm the bath slightly and wash your prints well before toning. Gives rich velvety purple tones if your negative is good.—B. DAVIDSON.

4175. **Borax Toning Bath.**—A reliable bath is borax, 2 ozs., dissolved in one quart of hot water; when cold, take 5 ozs., and add 2 grs. of gold in solution. This will tone one sheet of paper. I have got all tones from warm brown to a velvety-black with this bath, but it will not keep more than twenty-four hours after the gold has been added to it.—CHAS. H. FREEMAN.

4176. **Iso. Plates and Gas-Light.**—Iso. plates would be best for your purpose; but they might be employed in a more profitable manner. I believe them to be the best all-round plate in the market, but the greatest care must be exercised in keeping them from any light except the deepest ruby, and not too much of that. You may expect a few failures with them at first, as they are not easy to work; but when they are worked properly the results are admirable.—THE SMITH.

4177. **Copying Old Painting.**—As the picture is very dark in colour and uniform in tint, I am afraid you will have some difficulty in obtaining good results. Use Iso. plates by all means, and carefully guard against reflections from the varnished surface. Give a full exposure and develop slowly.—THE SMITH.

4178. **Margate.**—You will get some good marine subjects here. For permission to take Canterbury Cathedral you must apply by letter to the Dean.—W. A. J. CROKE.

4178. **Margate.**—The only places near Margate which you would find worth photographing are Minster, St. Peter's, Canterbury, and perhaps Reculvers; the rest of the country is perfectly flat.—H. I. C.

4181. **Instruction Book.**—"Experimental Photography" or "Photography for All," price 1s. each, from the publishers of this paper.—THE SMITH.

4181. **Instruction Book.**—I have found the "A B C of Modern Photography," by W. K. Burton. Published by Piper and Carter, very instructive and simple; it is one shilling. I got it by ordering it from Whiteley, Westbourne Grove.—H. I. C.

4181. **Instruction Book.**—I should say the "A B C," published at 1s., would suit you. Order it through your local bookseller. I should advise your getting "Fallowfield's Annuals" as they are published. They are full of useful information.—W. A. J. CROKE.

4182. **Pure Black Tone.**—Try the bath given in answer to 4175.—CHAS. H. FREEMAN.

4182. **Pure Black Tone.**—If "Nimrod" will write to me I will explain why he cannot get good black tones on albumenised paper.—PHOTO (address with Editor).

4182. **Pure Black Tone.** cannot be obtained by gold toning on albumenised paper. The nearest approach is but a dark purple or brown, according to the bath used. If you want pictures in black and white, better use the bromide or platotype.—THE SMITH.

4182. **Pure Black Tone.**—  
 Chloride of gold ... .. 2 gr.  
 add

Precipitated chalk	...	...	...	20 gr.
Saturated solution chloride of lime	...	...	...	2 drops
Boiling water	...	...	...	16 oz.

Don't add the gold until the solution has cooled down to lukewarm temperature. Keep from ten to twenty-four hours before using. Or, print under dark-green glass. See that all the details in the high lights are fully out. Never mind some of the detail being lost, or nearly so, in the shadows. Tone in the following bath:—

Borax	...	...	...	...	1½ drm.
Uranium nitrate	...	...	...	...	4 gr.
Gold	...	...	...	...	3 "
Water	...	...	...	...	24 oz.

This is Otto Schölzig's method.—B. DAVIDSON.

## EDITORIAL

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING's post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

J. L. TROTTER.—Thank you for the information. We have not seen the new edition of camera named in your letter; but the price will be prohibitive, we should fear.

E. P. VULIAMY.—If you note you will see that we gave me als for both landscape and seascape. We have heard of others who are finding the same fault. A fault in the paper possibly, and not the negative.

A. M. M.—We should give the preference to D, and then H, A, T, B, G. The simplest is possibly G. E. M. C. C.—The fault is in placing the paper between the films of negatives. There is no possible way by which you can remove the marking. We should place the lantern plates 2, 4, 3, 1.

BUTLAND.—You cannot do better than buy



"Pictorial Effect" (Robinson). You will find the new edition of the "Dictionary of Photography" (Wal.) just ready, very useful.

E. B. BOWDON.—At 46, Water Street, Bradford, the makers will better describe their use than we can. CATHERINE MIDDLETON.—Are sorry that we cannot help you about the shutter. You can with every safety buy a long-focus lens of the firm named, and will be quite certain to have a good article.

HENRY GOODWYN.—We insert the query, but do not think you need be downhearted. Do you take care to have the paper sufficiently moistened, as that will aid you in getting depth of tone?

LIANFAIR.—Your photographs are very fair. The best are Nos. 3 and 4. The latter is a capital study. Possibly quarter-plate photographs do not receive so much attention as other sizes. The fault very frequently lies with the worker, as he, unfortunately, tries to get as much on a quarter-plate as would fill a 10 by 8. Several medals have been awarded for prints from half-plate negatives. The first, second, and third prizes in competition No. 16 are all on half-plates, and the bulk of the work is on that size, 5 by 4, or quarter-plate.

JACOB.—You have a flare-spot on the print, caused by reflection. Possibly your diaphragms have worn bright; if not, the lens is at fault.

PIN.—We are much afraid the pinholes are due to faulty coating. They are far too numerous to spot out, and, as a consequence, the negatives are useless. Shall we return them to you?

E. HULME.—The camera A is a most serviceable instrument, and if you do not mind price, we are sure you will be pleased with it.

DUOMIS.—The awards are made regardless of the apparatus used, and entirely upon the merit of the picture sent. No allowance is made "for photographs taken with cheap lenses." If you buy the *Photographic Reporter*, you will find full particulars of lens, plate, shutter, paper, etc., used.

H. HARGRAVE GRAHAM.—We will let you know about the mount in a week or so. Have placed it in the hands of an expert to test.

D. S. WATSON.—We do not care to send our lanterns so far, and shall not be able to send you such a series as you suggest.

J. W. RADRE.—The print may be from an *enlarged* negative.

G. KILBURN.—We are not disposed to alter the conditions drawn up. The fact that it is as you say, "not one worker in a hundred could produce ten slides suitable for competition without having a lot which, through some defect either in exposing or some flaw in the film or other cause, would be unsuitable for competition," it is certain from your own argument that it will be a fair for one man as another.

G. W. C.—To answer the question you sent, it is necessary to know what developer you used, and your method of using it. We may then, perhaps, be able to help you as to the cause of "the film floating off the plate."

H. E. W.—Place the negative in the fixing bath again, and well wash under a running tap.

C. A. RUDOWSKY.—If you send us specimens, we shall be pleased to write a paragraph upon the new paper.

MADRAS.—Daylight, if you can spare the time. Two excellent articles upon "Enlarging" appeared in the AM: PHOTO: August 29th and September 12th. Yes, with care.

NESTAW.—Nos. 2 and 3 are the best prints. In No. 6 you have secured a good warm tone. Your work shows considerable care in selection, and we have no doubt we shall find your prints in our competitions before long.

F. KELLY.—(1) You have not taken sufficient care in your intensification, and the washing has not been done thoroughly. Read the chapter on "Intensification," in Burton's "Modern Dry Plate Photography." (2) In all probability because you have not carefully dusted the plate before placing in dark slide. It is, of course, possible that it may be due to faulty coating; but more often than not pinholes are the fault of the operator rather than the plate-maker. (3) We prefer No. 2, which is a most useful and well-made shutter. (4) We have secured good results with both; the former is very easy to work.

J. K. G.—No. 1 is spoilt by the heavy foliage on the left, and you would have made a better picture had you been nearer the house, and taken the view the long way of the plate. Your focussing is faulty. No. 2: you have not got your subject well lighted. Have got a thin negative through faulty exposure and prolonged development. A duplex lamp, giving a good light, will answer your purpose.

COLOR-SERGT.—The makers can advise you better upon the point than we can. The competition was for "Instantaneous Photography"—animals, etc., and either your "Waiting for Result of Queen's Prize at Bisk" or "In Portsmouth Harbour" would have been eligible. Your pictures are all of good average merit, and show care in selection and production.

H. J. C.—We should like to see some of your friend's prints (silver) toned without washing? Photographs from quarter-plate upwards may be sent in.

S. FRANCIS CLARKE.—Many thanks for letter; will write you later.

E. DALTON.—They are both good lenses; we prefer No. 1.

W. J. R.—If you have the negative there would be no difficulty, and if not, the print could be copied and a print taken from an enlarged negative.

G. F. FILLIS.—We are not up in prices of mounts; write to two or three dealers, and compare them.

R. T. BRICKDALE.—For lantern transparencies you cannot do better than buy Hepworth's "Book of the Lantern." The frames can be bought of any dealer, we believe; certainly from the larger firms. Thank you for your good opinion.

PHOTO MAD.—We believe the exposure was made with Mr. Meldon's own shutter.

R. ROBERTS (MAJOR).—As far as we know the mounting-board is not on sale. We hoped the description would have been clear enough for any one to take the manufacture in hand themselves.

OLD TANNIN.—The plates could be coated with emulsion, but would be hardly worth while.

MAC.—The *Reporter*, containing review of "Monthly Competition No. 16," should be published by the 1st of October; we quite hope it will be.

SUNBEAM.—We will register the address for next year; the "Dark Room" season is really now over.

W. POLLOCK.—The firm is one of the highest reputation, and would not, with the consent of the principals, be guilty of such conduct as you name. Write to the head of the firm. We cannot take up matters which are probably the fault of some irresponsible servant.

BLANCHE.—The lens you name working at  $f/8$ , supplied by C., is a good and rapid lens, and for very much of your work you would find it most serviceable. You must decide for yourself; you know the work you require the lens to do. The wider the angle the greater the distortion.

CAMERA.—No. 1, a most serviceable "set." (2) Some capital work is done with the lens. (3) Yes, and secure a medal.

J. T. BRODICK.—The first-named shutter is at the same time one of the best and cheapest in the market. Of those higher priced shutters named we prefer F.

R. GARDINER.—The upright view is spoilt by vignetting, and the other has too much foreground. The technique is fairly good, but the point of view is not well chosen, and the lighting of the cathedral is faulty.

E. W. MALE.—The prints have been sent you. Why not send us one of your bromide prints and the negative? We can then better advise you.

S.—Have inserted as a query. Write Mr. C. H. Bothamley, Yorkshire College, Leeds; he might be able to help you.

WALTER T. NASH.—We hope the index for current half year will be more satisfactory; it is being compiled upon different lines.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

**Backgrounds, etc.**—Backgrounds, interior and exterior, with cabinet burnisher; 25s.—Staker, 10, Montpelier Street, Walworth, London.

**Bicycle.**—Exchange 54 in. Premier bicycle, value £6, for good half-plate set; cash also if superior apparatus.—G. H. Spikins, 5, Regent Terrace, Anlaby Road, Hull.

**Burnisher.**—Powerful steel bar burnisher, for cabinets, in good condition; 10s. 6d.—Y., 52, Shillington Street, Battersea.

**Burnisher, etc.**—Optimus cabinet burnisher, 7 by 5 1/2 inch lens; exchange half R.R.—Tooth, Stephen Street, Rugby.

**Cameras, etc.**—Light whole-plate camera (by Fallowfield), all movements, single lens,  $f/8$ , conical mount, rigid tripod; £4 5s.—S., 41, Waldemar Avenue, Fulham, S.W.

For sale, whole-plate camera, Simplissimus patent, all movements, with two double dark-slides and tripod, new four months ago, approval; also Diamond Detective camera, quarter-plate, only used a few times, approval.—Benjamin Roberts, Athlone.

Whole Scotia camera, two fronts and two double

backs, with automatic closing springs; 98s.—G. E. Bennett, 43, Mitchell Street, St. Luke's, E.C.

15 by 12 double-extension modern camera, leather bellows, reversing and swing back, three double backs, £10 10s.; 12 by 10, £8 10s.; whole-plate £5; half-plate, £4; Dallmeyer's 10 by 8 double lens, £4.—J. Biddle, 97, Medlock Street, Hulme, Manchester.

**Dark-Room Lamp.**—For sale, dark-room Rubralux lamp, with yellow and ruby light, in good order; price 5s.—Abbott, 307, Fulwood Road, Sheffield.

**Double Backs.**—Six mahogany quarter-plate double backs, Underwood's; cost 45s.; price 28s.—Rev. Hick, Whickham, Newcastle-on-Tyne.

**Hand-Cameras, etc.**—Fallowfield's Facile hand-camera, latest improvements, R.R. lens; cost five guineas; sell for four guineas; quite new.—B. D., 62, Manor Road, Brockley, S.E.

Swinden and Earp's hand-camera, with sling case, good as new; £5 10s.—Young, 19, Lambourn Road, Clapham.

Rouch's Eureka quarter-plate, with detachable changing back, focussing glass, improved shutter, but without lens, in solid leather case, nearly new; cost, with lens, £8 13s. 6d.; price £4 10s.—E. J. St. Andrews, N.B.

**Lenses.**—5 by 4 wide-angle rectilinear lens, 3½ in. focus; 26s.; approval; deposit.—Bennett, 43, Mitchell Street, E.C.

Half-plate Ross' symmetrical, perfect condition; cost 70s.; sell for 45s.—C., 3, Adelphi Terrace, W.C. Splendid old 9 by 7 view lens (by Bland, London); exchange, with part cash, quarter Instantograph, perfect.—A. Norman, St. Oystin, Colchester.

Lancaster's half-plate instantaneous lenses, Iris diaphragm; cash offers.—S., 148, Stanstead Road, Forest Hill.

Ross' rapid symmetrical 8½ by 6½ lens (No. 44358), cost £6 10s., price £5; Ross' portable symmetrical, 8 by 5, 7 in. focus (No. 44237), cost £5, price £3 15s.; both the above are practically new, having been in use about five months; approval if required.—Elwes, Barracks, Lichfield.

**Lens, etc.**—Optimus 7 by 5 wide-angle symmetrical, new, 43s.; 8 by 6½ landscape background on roller, new, 10s.; 4 in. Hughes' Triplexicon lantern, in tin travelling case, fitted with portrait and single lenses, only 30s.; microscope to fit lantern, 17s., with two powers; a lot of comic slides, beautiful chromotopes, at bargains.—Dalby Smith, St. Thomas Street, Weymouth.

**Roll-Holder.**—Roll-holder, Eastman's latest, for sale or exchange, whole-plate, excellent order.—Houghton, 32, Clapton Common, London, N.E.

Eastman's quarter-plate roll-holder, latest model; 33s.; approval.—Photographer, Winchelsea, Sussex.

**Sets.**—7½ by 5 camera (by Meagher), with three double backs, all necessary movements, condition very good, waterproof case; £5.—B. A., 7, Lichfield Road, Cricklewood.

Half-plate Instantograph, four slides, lens, shutter, film, and quarter-plate carriers, stand, canvas case, £4, free; Stirn's Detective camera, two boxes plates, perfect condition, 20s., free.—Whiteway, Amphion, Pary's Avenue, Bedford.

For sale, complete, whole-plate apparatus, Ross' lenses; full details on application.—Alfred Hendrie, Thornwood, Uddington, N.B.

Lancaster's 1890 half-plate Instantograph camera, dark-slide, tripod, fitted with 7 by 5 rapid rectilinear double lens,  $f/8$ , with stops, new; bargain, 72s.—Herbert Rowe, Walbridge, Stroud, Glos.

Half-plate Instantograph camera, instantaneous lens, double wooden slide, and three double metal slides and adapter, Tylar's blind shutter, brass extension for copying, and folding stand, perfect condition; £3 5s.—Butler, 20, Alvington Crescent, West Hackney, N.E.

**Sundries.**—Will give anyone nine dozen 3½ by 3½ Edwards' isochromatic plates (medium), in good order, but cannot use up store for unforeseen reason, receiver to pay carriage.—Mrs. C. Penoyre, Brecon.

**Stereoscopic Camera.**—Camera (stereoscopic), fitted with fine pair portrait lenses, focussing screen, and dark-slide, complete, sell for 25s.; also Stirn's Vest camera, taking six pictures, cost 35s., sell for 16s. 6d., complete in case.—2, Northbrook Street, Birmingham.

**Tricycle.**—Singer Crimper tricycle, strong, fast, lamp, tool bag, luggage carrier and valve, worth £12; wanted, good half-plate set to value.—Letters, W. M., 67, Elwood Street, Highbury.

**Tripod.**—Half-plate Lancaster's girder-pattern ash tripod; cash 12s.; deposit.—Merry, 15, Mornington Street, Birkenhead.

## WANTED.

**Camera.**—Half-plate Instantograph; exchange magic lantern and slides.—Littlewood, Higginshaw, Oldham.

**Double Slide.**—Double slide, to fit Underwood's whole-plate Exhibition camera, in good condition, cheap.—H. Press, Broad Street, Bath.

**Lens.**—Ross' or Dallmeyer's half-plate rapid rectilinear lens, lowest price.—Fox, 22, Addison Road, Chiswick.

**Slides.**—Slides for Lancaster's quarter-plate, cash.—B. Marsell, 22, Castle Road, Southsea.

**Slide, etc.**—Good whole-plate double slide, wood or metal, also quarter, half, and whole plate ebonite dishes.—Abel, Carrier's Dock, Liverpool.



# The AMATEUR PHOTOGRAPHER

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[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—*Shakespeare.*

ALL interest is centred in the Photographic Exhibition at Pall Mall, which was opened with becoming ceremony last Saturday. The attendance at the conversazione was very large. Professor Glaisher, the veteran President, aided by members of the Council, received the visitors and had a kindly word for all. The attendance was unusually large, and the greatest interest was evinced in the "show," especially the medalled photographs. Judges never please everyone, but the criticisms upon their awards this year were very various. The Exhibition will be thoroughly reviewed by us, and the first article appears in another column. From it may be gathered what we think of the pictures exhibited. We are pleased to notice that although silver prints are almost absent, there is a decided return to warm tones; sepias and rich browns seem to have been adopted by almost every school; the cold grey and black of the platinotype prints, so prevalent in past years, are few and far between. There is also much more originality in framing, so much so that we have devoted a short leader to the subject. Next week we shall give an article upon the apparatus exhibited. The most novel application of photography is that exhibited by Messrs. Green, Cross, and Bevan, in connection with their use of "Primuline," a coal-tar dye, and the specimens of printing done direct from the negative on "soft goods," silks, jean, etc., by what is termed "Diazotype Printing," is the sensation of the Exhibition.

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WE shall this year, as promised, devote considerably more attention to the exhibition, and hope to point out the good work that has not taken medals. Every one interested in photography—and there are thousands who will read these lines—should spare time to visit the Exhibition.

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WE have received from Mr. James Lyon, M.A., a print of a photograph taken by him of "How Surefoot won the Two Thousand." It is so admirable an instantaneous picture, and so conclusively proves Professor Muybridge's statements, that we shall hope to reproduce it an early issue.

\* \* \* \*

THE *Photographic Quarterly* for October will contain a photogravure by Mr. Walter L. Colls, from a negative by Mr. A. Maskell, entitled "Tol Carn, Penzance, and

Harbour of Newlyn." Mr. Colls has exhibited a print from the plate at Pall Mall. It may interest our readers to know that this photograph was taken *without a lens*, under the following conditions: Distance from rocks (in the foreground), 25 feet; diameter of aperture (used in place of lens) one-fiftieth of an inch; distance of aperture from plate, 8 inches; size of plate, 8 inches by 5 inches; time of exposure, 8 minutes. The picture was taken on an Eastman's transparent rollable film on a bright afternoon in April. The result shows the possibilities of photography *without a lens*.

\* \* \* \*

WE would remind our readers that Mr. Lyd. Sawyer's photographs will be on show at the Camera Club after Monday next, constituting as they do the sixth of the series of the One-man Exhibitions. Next Thursday evening, the 9th, Capt. Abney will read a paper; on the 16th, Mr. Lyonel Clark will give "Further Notes on Silver Printing." Mr. E. J. Humphrey is down for a paper on the 23rd, and the 30th will be a lantern evening.

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THE last issue of the *Pall Mall Budget* contains some very typical illustrations of the "hoppers," otherwise those engaged in picking hops in the gardens in Kent. They are reproduced from photographs, and are thoroughly characteristic of the scenes to be witnessed daily in the hop gardens.

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MANY applications have already been received for entry forms, rules, etc., for our next competition, "Holidays with the Camera." These will be ready next week, and will be sent to all applicants sending stamped directed envelope. The intention to award progressive medals has given the liveliest satisfaction, and will, we are sure, result in the increase of competitors and induce past prize winners to enter the competition.

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WE would remind our readers of the Photographic Salon to be held in Vienna in 1891, and that Carl Srna (vii. Stiftgasse 1, Vienna) is the Secretary. We hear that many of the best amateur workers are preparing for the Exhibition.



A PHOTOGRAPHIC society has been formed at Penge under the title of the Crystal Palace District Club. Meetings are held on Wednesdays. The Secretary, Mr. H. Hunt (of 3, Lowden Terrace, Green Lane, Penge) will be pleased to hear from intending members, and will give further particulars upon application.

\* \* \* \*

At the last meeting of the members of the Auckland (N.Z.) Photographic Society, a paper was read on "Flash-light Photography." The liveliest interest is evinced in photographic advance in our colonies. We have recently received an enquiry from Ballarat, Australia, for further particulars of chromo-collotype work, prompted by a perusal of the last number of the *Quarterly*.

\* \* \* \*

THE many calls upon our space this week necessitate our holding over Part VII. of "Photography in Iceland" and several matters of interest.

\* \* \* \*

THE *Photographic Times* of New York in the last issue call attention to our effort to receive subscriptions for the repair of the tomb of Daguerre, and kindly offer to forward to us any contributions sent to them for the same object. We are sorry to say that our appeal has met with but little support. We hope this reminder may induce some of our readers to help us to gather in a sum that may be worth sending to the Cure de Cormelles.

\* \* \* \*

In the *Photographic Times* for the 12th ult. there is a fine photogravure reproduction of the Daguerre memorial, which has been recently unveiled. The monument has been described several times, and all that it is necessary to say is that, judging from the picture before us, the work is admirably done, and reflects the greatest credit on the designer and sculptor. The plate on the side of the base reads: "To commemorate the half century in photography, 1839-89. Erected by the Photographers' Association of America, August, 1890."

\* \* \* \*

It will interest our readers to know that Superintendent Matthews and Fireman W. Bowey, who were injured in the recent fire at Messrs. Mawson and Swan's premises, Newcastle-on-Tyne, by inhaling nitric acid, are progressing favourably. The case of the latter was considered hopeless, but a marvellous result has been secured by novel means, and now there is every hope that his life will be saved. The *Newcastle Weekly Chronicle* says:—

"Bleeding was tried in the case of Fireman W. Bowey, whose case from the very first was considered hopeless—so hopeless, indeed, that all the medical gentlemen who attended upon him concluded upon examination that he would not live till the midnight following the accident—but the blood coagulated. With the object of giving a powerful stimulant to the system, the medical gentlemen resolved to try the effect of the inhalation of pure oxygen. The results which followed have been little short of marvellous. Before this treatment was adopted Bowey had all the appearance of having passed beyond human aid. The pulsation of the heart could not be detected; the body was cold; and all that indicated the presence of life was a slight heaving of the chest. On the first application of the oxygen gas the patient's breathing became quicker, and a healthy tone spread rapidly over the system. This experiment may have important results medically. Although not out of danger, the condition of Fireman Bowey is eminently satisfactory, especially when it is remembered that he has been literally snatched from death's door."

Messrs. Mawson and Swan have contributed 250 guineas towards the Mayor's Fund for the relief of the widows and orphans of the two firemen, Murphy and Grey, and the total on Friday was over £700.

\* \* \* \*

### NEW YORK PHOTOGRAPHIC SOCIETIES.

UNTIL the new building now being erected for the Camera Club in London is occupied, the claim made for the Society of Amateur Photographers of New York, that they possess the largest and most complete club-room of any photographic association in the world, may be allowed, for it is probably correct. Certainly the New York Society, in the move they have lately made from West 36th Street to the third floor of the extensive premises in West 38th Street, known locally as the Telephone Building, have undoubtedly added considerably to the conveniences and attractions of their club. This fact will doubtless, in course of time, lead to such an increase in the membership that it will become necessary to follow the example of the London Camera Club, and build premises especially adapted for their accommodation. When the fact is taken into consideration that the popularity of photography as a scientific or artistic pastime shows no more signs of abatement in the new world than it does here in the old country, but, on the contrary, appears to increase with greater rapidity, such a contingency as that suggested may arise sooner than the "amateur photographers of New York" anticipate. Meanwhile, however, their present abode, and the special arrangements made therein for the conveniences of the members, are certainly very complete. When the comparatively limited space at the disposal of the Society is fully appreciated, a critical inspection of the arrangements which have been made cannot fail to impress the mind with the fact that the Society is greatly indebted to the ingenuity and efficiency of its officers and Committee of Management. Every available corner has been utilised, but, nevertheless, ample conveniences have been provided for the practice of the photographic art in its manifold phases, and that in a manner suggestive of cleanliness and comfort. Some of our societies here in England might with advantage study the comfort of their members more than they do, and certain novel features about the New York Club are undoubtedly worth adopting wherever practicable. This society only occupies one room, but it is a very long one, and shaped something like a capital U. Each wing is 90 feet long and 20 feet wide, with a frontage of 75 feet. One wing is fitted up with a screen, lantern stand, and rows of seats, so that it is readily available for the exhibition of lantern slides or for lecturing purposes. That part of the room running along the front of the house is screened off so as to form a reading-room and library, being comfortably furnished with easy chairs, writing tables, and well-stocked book-cases, and with a view to their preservation, but also in a convenient manner for consultation, all the photographic magazines and papers are here to be found.

The other wing is divided into dark-rooms, workshop or laboratory, and a portion of it has been converted into a copying or enlarging room, while along the walls, and arranged as screens, no less than one hundred and ten large lockers with convenient fittings are provided for those members who care to keep their photographic appliances at the Club. The dark-rooms are models of perfection, well lit, perfectly ventilated, and furnished with all the conveniences the most fastidious photographer could desire. They are arranged in the form of stalls which are entered from a wide passage that communicates at either end with the



outside room by means of partitions arranged with a couple of sharp twists, or perhaps it would be more correct to say shaped like the form of a letter S. This device is far more effective for keeping out the light than even double doors would be, while its advantages are numerous—a free circulation of the air is provided, and a member laden with negatives or chemical bottles passes easily into the dark-room from the laboratory without having to engineer the opening of a couple of awkward doors and running the risk of admitting light through them. Each stall of the dark-room is provided with shelves for bottles, racks for trays, washing tank, and hypo bath. The water is supplied through two taps, one being suitable for filling bottles or similar requirements, and the other having the usual rose attachment for rinsing purposes. The whole of the building is splendidly lighted in the evening by electricity, and this is the only light used in the dark-rooms, where it is supplied at all hours. Incandescent lamps are swung on the outside of the ruby-glazed windows, and the light is easily controlled by the operator from the inside. Shades of various colours and intensities are supplied, so that the light therefore admits of further regulation according to requirement in the matter of the colour through which it has to be filtered. In fact, in every way the Club is very well supplied with all the mechanical devices for aiding its members to produce good work.

New York, however, boasts of another photographic society, called the New York Camera Club, which is domiciled in a large house on Fifth Avenue; and here again the amateur can find all the conveniences for the practice of his art, in addition to a spacious gallery where the work of the members can be placed for inspection. This club is somewhat more exclusive than the other one, the annual subscription thereto having been fixed at a sum which precludes any but wealthy men from joining. Their list of members includes some of the most prominent men of New York, and the photographs which adorned the walls during an exhibition of their work which was lately held displayed the fact that this club has some of the very best amateur photographers in the United States belonging to it, which goes to prove that leisure and wealth have a great deal to do with producing work which soars above the average. Portraiture is very conspicuous at this exhibition, and was of so marked a character that it became a matter of regret that this class of work is not more often seen at exhibitions, for the evidence there existed that amateurs can excel even the professional in this their strong point, by abandoning conventionality and being artistic and original. Some Swiss scenes by Mr. David Williams were shown here, which were of a very marked character in their *technique* and artistic qualities. The amateur photographers of America do not, however, as a rule, treat photography in the serious manner we do here in England. While, of course, many workers in their ranks are most painstaking, and others have made names for themselves among the leading men in the art, both as writers and experimenters, the rank and file look upon it as a pastime, and treat it accordingly. They get a certain amount of fun out of it, it gives them the rest they require from other engrossing labours by furnishing a pleasant occupation, and in their eyes its attractive qualifications would entirely disappear if the art was to be treated as a science, and its intricacies had to be studied with applied devotion. Nevertheless, in all the conveniences that facilitate the practice of the art, and in the methods that tend to simplify its manipulation, our American brethren are in no way behind English amateurs, as is evinced by the various societies and clubs they have formed, and the perfect appliances for photographic purposes with which they have furnished them.

## FRAMES AND MOUNTS AT PALL MALL.

A FEW notes which we have made on the subject of frames and mounts at the Exhibition of the Photographic Society of Great Britain may be useful, or, at any rate, interesting, to such of our provincial and other readers as may not be able to visit the show just opened at Pall Mall East. The amateur is often puzzled to know how to frame and mount his productions in the manner best calculated to enhance their beauty, and we think he will be glad to know how the prize-medal pictures are displayed; the more so as it may be some help to him in his efforts to catch the judge's eye at any exhibition he may compete at. Taking the prize medal exhibits in catalogue order, the first is "An Old Farmstead" (55) by Davison. This has no mount at all in the ordinary acceptance of the word, but has, instead, a broad receding flat under the glass, so that the picture is perhaps half an inch behind the latter. The flat and glass are enclosed in a plain but bold gilt moulding of considerable width; the tone of the print is warm, its light and shade subdued and massive, and details merely suggested.

"Two's Company" (122), Lyd. Sawyer. The mount is a warm grey with a white centre, on which the print is pasted. The frame is an inch and a half ordinary oak reed with gilt slip. The tone of the print is sepia.

"A Summer Evening" (166), J. B. B. Wellington. White mount, grey-buff centre, black and gold frame. Tone of print, warm.

"Feast of Roses" (184), Shapoor N. Bhedwar. White mount, buff centre, walnut and gold frame. Print, warm platinotype tone.

"Dedham Bridge" (232), Lyonel Clark. Rough, pale buff (a kind of Naples yellow) mount, with cut-out opening, which has its edge gilt, and which encloses a rough, white mount on which the print is fastened. The print is on very rough paper, and its tone (obtained with palladium intensified with silver) is a peculiar but attractive warm sepia.

"The Love Letter" (221), John E. Austin. Mount, pale grey; frame, black with gold slip; print, ordinary platinotype tone.

"Sand Dunes" (365) B. G. Wilkinson. Mount, white, buff centre; frame, oak moulding; tone of print, brown.

"Jap. Scandal" (641), H. Van der Weyde. Framed close, has a half-inch very dull gold reeded slip, enclosed by a somewhat dark coloured oak frame, nearly flat, measuring about ten inches in width. On one corner is depicted a "Japanesque" bird in dull gold, and on the sides there is some Japanese calligraphy, executed in the same medium. The picture, whose tone is warm, is of large dimensions.

Excluding repetitions, the above includes all the methods of mounting and framing as exemplified by those pictures which took medals.

To describe all other notable variations would be beyond the scope of these notes; but we may mention that there is in the exhibition under consideration a strong tendency shown to employ moderately wide plain oak mouldings; while dark-stained oak is gaining a popularity which is somewhat shared by walnut. White reeded frames are rapidly losing ground.

Some exhibitors have tried plain oak mounts, *e.g.*, Mr. Gambier Bolton, whose "Kittens" have broad oak mounts and plain oak frames with gilt slips. Besides Mr. Davison's picture already alluded to, Mr. Lyonel Clark showed three portraits, framed all but close; these were mounted on white, showing about three-eighths of an inch margin; next came gilt slip, about same width; the frame was a heavy, quite plain black projecting one, similar to those which prints sometimes used to be framed in about the beginning of the century; the portraits so sombrely surrounded were executed on exceedingly rough paper.



## Exhibitions.

### EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.—I.

THE Exhibition of the Photographic Society of Great Britain, annually held in the Gallery of the Royal Water Colour Society in Pall Mall East, holds in relation to other photographic exhibitions much the same position that the Royal Academy Exhibition holds compared with the minor picture shows. It has an established reputation, and to it all interested in photography throng to see the "pictures of the year," and to discuss their merits.

In one respect it imitates even the faults of the Academy Exhibition; it goes in for "close hanging," and crowds its walls with numbers; and it might be worthy of consideration by the executive of the Photographic Society of Great Britain whether some limitation of the number of works to be sent in by each exhibitor would not only lighten their labour in hanging, but give them the chance of a better arrangement of the pictures on the walls, and thus improving the general aspect of the Gallery, while it certainly would not lessen the reputation of those exhibitors who go in for quantity as well as for quality.

The vexed question of which are the best pictures is in a measure settled for us in advance in this Exhibition, as the Society, through the judges elected by its members, award medals to what are considered to be the most worthy works, and when the judges are men of such reputation and acquirement as Captain Abney, Messrs. Valentine Blanchard, W. England, J. Gale, H. Moore, A. R. A., and H. P. Robinson, there can be little doubt as to the general correctness of their decisions, and none as to the conscientious care and thought by which they have been arrived at.

In the present Exhibition twelve medals have been awarded. Taking the order of the catalogue, we give the names of the exhibitors and titles of works thus distinguished:—

G. Davison .. ..	No. 55	An Old Farmstead.
Lyddell Sawyer .. ..	" 122	Two's Company.
J. B. B. Wellington .. ..	" 165	The Latest News.
Shapoor N. Bhedwar .. ..	" 184-189 (series)	Feast of Roses.
John E. Austin .. ..	" 221	The Love Letter.
Lyonel Clark .. ..	" 232	Dedham Bridge.
R. H. Lord .. ..	" 330	Study of Two Children.
Ralph W. Robinson .. ..	" 332	The Pedlar.
B. Gay Wilkinson, jun. .. ..	" 365	Sand Dunes.
Harry Tolley .. ..	" 399	Bantry Bay.
W. J. Byrne .. ..	" 441	Wilhelm Kristian Selle.
H. Van der Weyde .. ..	" 600	An Invitation to Supper.

Four of the medals have been given to pictures of landscape, four to landscape and figure, and four to portrait and fanciful figure subjects.

Perhaps the chief feature of the present collection is the evidence it gives of the marked advance and influence of what may be termed the "school of foggy photography." But a very few years ago, the aim of all, or nearly all, practising the art of photography was to produce a picture in which every object, and the detail of every object, should be hard, clear, and distinct. All that is changed now, and the aim is to obtain mass, tone, and softness; and while a distinct gain has been made in getting rid of the early metallic hardness, there is just a danger of those who adopt the more recent aims producing work from which brilliancy and sparkle is altogether excluded, and a certain monotony and indistinct blurred effect substituted, which may have a happy result in the treatment of certain subjects, but which is decidedly not appropriate to all.

Attention is naturally first directed to the contributions of those exhibitors to whom medals have been adjudged. "An Old Farmstead" (55) by Mr. G. Davison, has, in the middle distance, a picturesque cluster of roofs, clothes hanging out on a rope, and a foreground of a field of onions in blossom. The subject is good in arrangement, and the tone of the whole even, perhaps, to excess, as it misses a certain feeling of light and of being in open air, which we have in "A Breezy Corner" (54). "By the Essex Blackwater" (56) is the least successful of this group of Mr. Davison's contributions, as the thick, cumbrous piling running into the picture and suddenly breaking off has an unpleasant effect.

On the opposite wall is a group of nine pictures by Mr. Davison

(289 to 297), all of which merit attention; some from a certain originality and taste in the selection of subject, and others from appropriate and effective treatment.

Mr. Lyonel Clark has boldly gone into Constable's country, selected Constable subjects, and attempted to give them a touch of Constable effect; nor has he been unsuccessful in the result, and a medal has been awarded to his picture of "Dedham Bridge" (232). His picture of "Dedham Lock" (233), with its touch of sparkle in sky and water, is even more redolent of Constable, and the composition and treatment of both subjects are admirable. Mr. Clark's other contributions (460, 461, 462) show the danger as well as the beauty of "foggy photography," for while the treatment suits the venerable head and bearded face in 462, the other two heads have rather the effect of sepia drawings which have met with an accident, and been brushed across with a wet sleeve.

The fine contributions by Mr. B. Gay Wilkinson, jun., are so equal in quality that it must have been somewhat of a puzzle to the judges as to which should be granted a medal. It has been given to "Sand Dunes" (365), but another picture bearing the same title (367) is certainly equal, if not superior to it. All are characterised by such extreme simplicity of subject that only beautiful treatment and quality could make them interesting as they certainly are. Simple though the subjects be, they have been selected by an eye keenly susceptible to beauty of line.

Much more varied in subject are the eight pictures by Mr. Harry Tolley, whose "Bantry Bay" (399) has gained him a medal, and where the transition from foreground to the distance of mountains and mist is very agreeably rendered. A very beautiful subject is "At the Ford" (396), but the placing of the horse and cart can scarcely be called happy; by advancing them to the brink of the water, and having the horse drinking, a better arrangement would have been secured, and one which would have avoided that look of "standing to be photographed" which they have in the picture.

In the pictures which consist of figures and landscape, but where the figures are composed and grouped so as not only to form a picture but also to tell a story, very different conditions exist compared with the treatment of pure landscape, and as a rule they are much more open to critical remark. The four pictures of this class to which medals have been given have certain features in common. They are all rustic in character; their tendency is towards humour rather than sentiment, and they all look composed and fail in that subtle quality of art which hides the art. The artist photographer who sets to himself the task of producing a story-telling picture of rustic life finds himself in a dilemma at the very beginning. If he uses the genuine rustic model, he rarely gets good enough an actor as regards ease of pose and expression, and if he selects his models from another class and makes them up as rustics, the result in a picture is disappointing and unreal. We feel at once it is the rustic of the stage who might go very well with the scenery of the stage, but with the real background and surroundings he seems out of place.

Some such feeling we have on looking at Mr. Lyddell Sawyer's otherwise admirable medal picture, "Two's Company" (122); while we give full praise to its telling arrangement, to the pose and expression of the figures, and to the quaint bit of background, we feel too much that it is stagey and got up, and not a real excerpt of rustic life.

In "The Latest News" (165), Mr. J. B. B. Wellington has perhaps wisely chosen a much more simple arrangement. His composition consists also of three figures, but they are clustered together, and only half length; a girl reads the latest news to her two companions, a girl on one side with basket on arm, and a man on the other side leaning on rake-handle. There is less evidence of over-formal arrangement in this little picture, and the two girls have a touch of idyllic tenderness and grace.

Mr. John E. Austin has chosen in "The Love Letter" (221) a somewhat similar subject, though greatly different in treatment and composition, but again we have one reading and two listening,—three fisher-girls deeply interested in the contents of a love-letter; two lean and graceful, but rather over-conscious, pose against the side of a boat, while the third is seated in listening attitude at their feet. It is, perhaps, too close an imitation of a certain kind of picture which is scarcely worth imitating, and of which examples enough and to spare are already in existence, and of which the faults are more apparent in photography than in painting. In the painting of draperies, for example, the painter can modify objectionable folds and forms in



a way which is not open to the photographer; the falling roll of the tucked-up dress in the figure of the girl reading the letter shows how awkward forms will intrude themselves, even in careful and studied work like that of Mr. Austin. In "Entangled" (220) there is a certain ease and natural pose in the fisher-lad and lass which is very pleasant, and in the group of pictures (178 to 182), also by Mr. Austin, ample evidence of the very high quality of his work is apparent.

Mr. Ralph W. Robinson, in arranging his subject-picture of "The Pedlar" (332), has in a measure increased the difficulties he had to contend with by including a greater number of figures in his composition. A cunning-eyed pedlar displays his tempting wares to an admiring and probably covetous group of would-be purchasers at a cottage door. His rustic figures are "native and to the manner born," and there is less of fictitious grace given to them by means of tucking up of skirts and affected pose, but the picture suffers from a certain lack of vitality and expression in the figures, excepting the pedlar himself. "Home to Dinner" (331), if less ambitious in its scope, is very satisfactory in its result; the figure seems to be moving, and to be in the right place.

If in these notes on the story-telling pictures more attention has been called to their weak points than to their many manifest points of excellence, it is from the thorough belief that something better and fresher is possible in artistic photography; infinite pains are taken to reproduce in photography a class of subject already rather trite and hackneyed. The very truth of photography in rendering details makes them appear artificial and composed to a degree, and the same amount of good work expended on subjects with a little more charm of novelty in the idea would lead to much more satisfactory results. When exception was taken to the artificiality of Mr. Lyddell Sawyer's "Two's Company," reference ought to have been made to another picture by him, "Rare Old Gossips" (326), which offers a perfect illustration of the fitness between figures and background, of the genuine people in their natural surroundings. Not beautiful certainly, but with the freshness and charm of a bit of nature; a narrow wynd in some smoky town, with the lower part of the grimy house whitewashed, and "the washing" hanging out on a line which stretches from wall to wall. Children are playing in the gutter, while round the doorway mothers and neighbours are indeed having such a rare old gossip that we can almost hear the clatter of their tongues. There is no playing of parts here, and it is interesting from its reality.

It is rather difficult to follow any continuous thread of story in the series of pictures, "Feast of Roses" (184 to 189), by Mr. Shapoor N. Bhedwar, to which a medal has been awarded. He has been fortunate in having very beautiful models, and some of the positions are very graceful, as, for instance, the two girls on the left, in "Weaving the Garland" (184). Curious mistakes are often made in what is evidently careful, studied work; in "Confidences" (188) the allowance of only one arm each to the two girls gives a most uncomfortable feeling, and, curiously enough, Mr. Bhedwar has repeated the same mistake in another picture, "La Tambourine" (463), where only one arm is visible. The head of the girl in this picture is charming.

Mr. Van der Weyde's "Invitation to Supper" (600) gives a procession of figures, two and two, in George costume, with a minuet-like movement, and must have been very difficult to produce. The scale of the figures has been well kept throughout, and graceful though slight variation of movement given.

For portraiture, medals have been given to Mr. R. H. Lord, for his "Study of Two Children" (330), and to Mr. W. J. Byrne for his "Wilhelm Kristian Selle, Mus. Doc." Mr. Lord's work is, unfortunately, placed too high. Mr. Byrne's work is admirable. He has been fortunate in his subject, and the picturesque broad-brimmed hat and easy air have helped to do away with the stiffness which is so frequent a characteristic of male portraiture.

We have confined our remarks in this article to the works of those exhibitors to whom medals have been awarded, as it is naturally to them that attention is first directed. As must ever be the case, works of equal or nearly equal merit just miss the distinction, and attention will be given to them in the next article.

"HECLA AND ECLAT."—A correspondent writes us, "In Photographing in Iceland," in the last number of your paper, the credit or glory of first 'taking' Hecla is claimed for Mr. Paul Lange. In 'Anthony's International Annual,' vol. iii., 1890-91, page 174, Dr. H. Valentine Knaggs did it first."

## Letters to the Editor.

### ENGLAND'S CELLULOID FILMS.

SIR,—From a hint in the AMATEUR PHOTOGRAPHER early in the year, I was induced to try England's celluloid films, and the result has exceeded my most sanguine anticipations. I procured twenty-four 10 by 12 films, and all except one have turned out perfect. The exception has merely one or two dark spots in the sky, and may have arisen from defective manipulation. These films work easier than glass plates, do not cockle, or will lie quite flat when dry, and are as tough as glass while being manipulated and quite as transparent when finished. In one way they are superior to any dry plates I have tried, as wherever the clouds are fairly prominent in the sky they are clearly reproduced in the negative. In using ordinary slides it is necessary to use cardboard as a backing to the film, and therefore care should be taken that nothing in the shutter can possibly touch the film and produce scratches on it. The formula for development given by Mr. England appears to be perfectly reliable.—Yours faithfully,

GEO. H. VERNEY (Lt.-Col.)

Clochfaen, Llanidloes, North Wales,  
September 27th, 1890.

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### FERROUS OXALATE.

SIR,—Perhaps the exposures of "F. M. G." have been exactly correct. If so, ferrous oxalate would be good as other, possibly better; but when I call to mind the numerous actinometers of various makes and exposure tables, all advertising to give the correct exposure, I think it is pretty conclusive that the proper exposure is a difficult matter, and so stated in all text-books, and which can only be gained by constant practice, which amateurs do not get as a rule. Consequently a developer that will allow the most latitude to rectify exposure errors will and should be the popular one, and I have no hesitation in asserting once more in your paper, as I did three years ago, that hydroquinone cannot be beaten, and in proof of its popularity I would mention that the salt was 4s. per ounce when I wrote you in its advocacy, and now it can be got for 1s. 6d.

In my holiday trips, when places are strange and light variable, I take the precaution of erring on the side of over-exposure, and then with two dishes of developer, one freshly made and the other previously used, I feel pretty confident of having most of my plates under control.

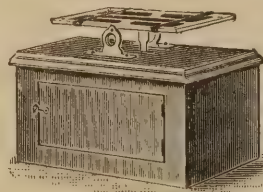
No stain, no alum bath, yet producing a clear and often sparkling negative. In my hands pyro stains dreadfully, and negatives seldom free from being yellow, and ferrous oxalate is always in a hurry, although I have tried the tentative mixture; results too much contrast. Hydroquinone is also handy for bromide paper, thus simplifying the amateurs' chemicals.—Yours truly,

A. C. TOWNSEND.

September 29th, 1890.

TAKE any small quantity of starch and place in a teacup, with water to moisten it, and work it until smooth with a tea-spoon, then add water to the consistency of cream. Place the cup in a saucepan of boiling water on the fire, and keep stirring the contents of the cup until it is clear; when cold it is ready for use.

MR. JOHN LEWIS AND Co., Gladstone Road, Sparbrook, Birmingham, has shown us Lewis's Automatic Plate Holder, which has several novel features. It is kept in motion by clock-work, and should be fixed in every dark-room. Especially is it



useful for slow development. The price of this apparatus for half-plates and under is 17s. 6d.; for whole-plates and under, 25s. Another invention of the same firm is their adjustable Stand-



Holder, which they thus describe: This holder is for keeping the tripod steady, and preventing the slipping of the legs; it can be adjusted instantly, is flexible, folds up with the stand, weighs only a few ounces, and will save many a spill. After having seen the application of the holder, we can heartily recommend it.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 202.)

OXYGEN is found by careful experiment to be sixteen times as heavy as an equal volume of hydrogen, and nitrogen is fourteen times as heavy as an equal bulk of hydrogen. Since equal volumes of oxygen and nitrogen have different weights, it follows that the proportions of the two gases in the air *by weight* will not be the same as the proportion by volume. We know the proportions by volume, and we know the relative weights of the two gases, therefore we can calculate the proportions by weight. It is, however, very desirable that we should obtain this knowledge by independent experiment, and the determination is based on a reaction with which we are already acquainted (Experiment 34).

A glass tube is filled with metallic copper and carefully weighed. It is then placed in a furnace, and one end of the tube is attached to a series of tubes containing substances which will remove from the air moisture, carbon dioxide, and everything but oxygen and nitrogen. The other end of the tube is attached to a large glass globe, which has been made as vacuum as possible. The empty globe is carefully weighed; between it and the tube containing the copper there is a stopcock. The copper in the tube is heated to redness by means of the furnace, and the stopcock attached to the glass globe is cautiously opened. The globe being vacuum, the air from outside passes through the purifying tubes, through the tube containing the red-hot copper, into the globe. As the air passes over the copper, the latter combines with the oxygen of the air and forms copper oxide (Experiment 34), whilst only nitrogen passes into the large globe. As soon as the latter is filled with nitrogen the current of air stops. The apparatus is allowed to cool; the globe is weighed, and the increase is the weight of the nitrogen which it now contains; the tube with the copper and copper oxide is likewise weighed, and the increase is the weight of the oxygen which has combined with the copper. In this manner we ascertain separately the weight of the nitrogen, and of the oxygen in the purified air, which has passed into the apparatus. Many experiments have shown that in 100 parts of air by weight there are 23 parts of oxygen and 73 parts of nitrogen. We may, therefore, sum up our knowledge of the composition of purified air in the following little table:—

*Average Composition of Pure Air.*

	By volume.	By weight.
Oxygen .. ..	20.95	23.0
Nitrogen .. ..	79.05	77.0
	100.00	100.0

Up to this point we have been working with purified air, that is, air consisting solely of oxygen and nitrogen, but the atmosphere which we have to deal with in ordinary life contains several other gases, which, although existing only in small quantities, have very important relations to the life of animals and plants. One of these gases, carbon dioxide, is always present; and another, water vapour, is only absent under very rare conditions, so that we may regard both of them as essential constituents of the atmosphere. The others are ammonia, nitrogen oxides, ozone, volatile organic matter, and, under certain conditions, sulphuric acid, hydrogen sulphide, and other products of combustion and chemical operations.

EXPERIMENT 56.—The presence of aqueous vapour in the air of, for example, a warm room, is easily proved by bringing into it some cold bright object, such as a clean beaker containing ice-cold water. The water existing in

the air in the form of vapour condenses on the surface of the cold object in minute drops. If the object is allowed to remain in the room so that it gradually acquires the temperature of the room, the condensed water will again pass into the air as vapour.

The quantity of water which can exist in the form of vapour in a given volume of air varies with the temperature, and increases as the temperature rises. It is found by direct experiment that the maximum number of grammes of water which can exist in one cubic metre of air at different temperatures is as follows:

T.	Grammes Water.	T.	Grammes Water.
0° C	4.871	15° C	12.746
5°	6.795	20°	17.157
10°	9.362	25°	22.843

Observe that the air on a warm summer's day, or in any closed space at a summer temperature, may contain about four times as much water vapour as it can at the freezing point (0° C). When the air contains as much water vapour as it can contain at the particular temperature, it is said to be saturated. Any reduction of temperature is, of course, followed by the deposition of part of the water. This explains why any cold body which is brought into a warm, moist atmosphere is at once covered with a film of condensed water. The air in immediate contact with the cold body is cooled to such an extent that it deposits part of the moisture it contains. Of course, if the warm air is very dry, the cold body may not cool it sufficiently to produce any condensation of water. The temperature at which a given sample of air will begin to deposit its moisture is called its *dew-point*, and the dew-point obviously depends on the amount of water vapour which the air contains; if the air is very dry, its dew-point will be very low; if the air is very moist, a slight reduction of temperature will be followed by the deposition of condensed water.

A knowledge of the quantity of water present in the air at a given time is of great importance in many photographic and other operations. The determination is effected (1) by passing a large measured volume of air through a series of carefully weighed tubes containing drying materials (e.g., calcium chloride, or, better, small pieces of pumice stone moistened with strong sulphuric acid); the increase in the weight of the tubes gives the amount of water in the measured volume of air; (2) by cooling the air and observing the dew-point, and (3) by means of the wet and dry bulb thermometer.

The last method is the quickest and most convenient, and is very generally used. Two similar thermometers are mounted side by side on a stand, and the bulb of one of them is exposed to the air in the ordinary way, whilst the bulb of the other is covered with muslin to which is attached a cotton wick dipping into a small vessel of water. In this way the bulb of the second thermometer is kept continually wetted, and it is called the wet-bulb thermometer, whilst the other is called the dry-bulb thermometer. When it is desired to know the amount of moisture in the air the temperatures indicated by the two thermometers are carefully observed, and from the temperature of the dry bulb thermometer and the difference between it and the temperature of the wet bulb, the quantity of moisture in the air can be calculated. The calculation is based upon the facts that (1) the difference between the temperature of the wet bulb and that of the dry bulb depends on the rate at which the water evaporates from the surface of the wet bulb, and (2) the rate at which the water evaporates depends on the amount of water already present in the air and on the temperature of the air.

EXPERIMENT 57.—Wrap a small piece of cotton wool



round the bulb of a thermometer, and, far away from any flame, drop a small quantity of ether on the wool. *Observe* that the ether rapidly evaporates, and at the same time the mercury falls, showing that the bulb has been cooled considerably. Perform a similar experiment with alcohol; in this case the evaporation will be slower and the cooling will be less marked.

Whenever a substance changes from the state of liquid to the state of gas, a certain quantity of heat is required to effect the change, and hence, unless heat is supplied from the outside, there is a cooling of the liquid itself or of the materials with which it is in contact.

The relation existing between the temperature of the dry bulb, the temperature of the wet bulb, and the quantity of water in the air is somewhat complicated. It has been worked out once for all by experiment and calculation, and the results are contained in tables which are furnished with the *wet and dry bulb hygrometer*, as the arrangement of the two thermometers is called.

(To be continued.)

## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### INTRODUCTION.

INSTANTANEOUS photography: What is it? The joy of the beginner, the dread of the expert; it is at once the glory and the reproach of our art. By instantaneous photography we arrest the seagull on the wing, and the diver in mid-air; but the nurse who brings the baby to be "took" on a dull November day bursts out with, "Oh, I thought you had the *instantaneous* process!" when told that the feat is impossible.

*Definition of the word "Instantaneous," as used in Photography.*—We have known what "photography" is for fifty years; but what does "instantaneous" mean? It is the older word of the two, by far, so let us have recourse to the dictionary. Barclay defines "instant" as "a portion of time wherein we perceive no succession;" and "instantaneously" as "done in an instant, or without any perceptible succession; with the utmost speed." Other authorities agree in disavowing the idea of "time" from "instantaneous." Thus, an "instant" is not a period of time, like a second or a minute; but is something which occupies no time at all.

Now, this idea of the meaning of the word "instantaneous" is certainly not the one which we assign to it photographically. However short may be the period of time in which an "instantaneous" photograph is secured, *some time* must be occupied in obtaining it, even if it be only the ten-thousandth part of a second, by which the French astronomer, M. Janssen, sometimes secures pictures of the most luminous body known to us—the mid-day sun.

The meaning, then, attached to the word "instantaneous" by photographers, is that of a "very short period of time." But here comes the difficulty—how short?

At one time it seemed to us that it would be best to confine the word "instantaneous" to exposures which exceed in rapidity the distinctive perceptive power of the human eye. This power is stated by Professor Michael Foster, a leading authority on physiology, to be the one-tenth of a second. That is, if a conjuror has such power over his muscles that in less than the tenth part of a second he can put his hand into his pocket and take it out again, his hand—to our eyes—appears to remain in the place in which we first saw it. Or if—to take a very familiar example—a lighted stick be whirled round so that it returns to the same point in less than one-tenth of a second, we see a con-

tinuous circle of light, instead of a number of bright points.

Theoretically, the definition of instantaneous photography given in the last paragraph appears to us to be the best one. But, in practice, another definition now seems preferable. It is to call all exposures "instantaneous" whose duration is less than that for which a lens can be uncapped and capped again by hand. That is, all exposures are instantaneous which are taken in times so brief that some adjunct—as a shutter, etc.—must be used to secure the requisite rapidity. Using a loosely-fitting cap, it is possible to remove this, and to again replace it upon the lens-mount in about the one-third of a second. All exposures of less duration than this we shall consider as "instantaneous."

### CHAPTER I.

#### HISTORY OF INSTANTANEOUS PHOTOGRAPHY—THE DAGUERRETYPE PROCESS.

It is a popular belief, especially among young photographers and the general public, that instantaneous work is entirely a development of the photography of the present day. But this is a mistake. "There were strong men before Agamemnon," and photographs demanding very brief exposures were secured twenty, aye, and even thirty and forty years ago.

*Niepe and Six-hour Exposures.*—The first man to obtain a photograph in a camera was Nicephore Niepce, between 1816 and 1833. But the material which he used—bitumen spread upon metal plates—was so insensitive that an exposure of *several hours* was required. Instantaneous photography must have appeared to him but a chimera; indeed, the possibility of such a thing probably never entered his mind.

*Daguerre secures a Photograph in Thirty Minutes.*—Daguerre, the partner of Niepce, made considerable advance between 1833 and the year (1839) when the daguerreotype process was published to the world. His method consisted in coating metal plates with iodide of silver, which plates were exposed in the camera, and then developed by the vapour of mercury. The necessary exposure was about *half-an-hour*.

*Improvements in Daguerreotype—The Exposure Reduced.*—But great improvements were made in the Daguerreotype process between 1839 and 1855. Goddard, Claudet, Fizeau, and others exposed the iodised surface of silver to the action of bromine vapour, by which silver bromide was produced. Now silver bromide is far more sensitive to light than silver iodide. Chevalier constructed improved cameras, and ground improved lenses, and in 1841 the first portraits were secured by photography. It may be interesting here to reprint Thomas Sutton's account of his first interview with the camera (Sutton edited "Photographic Notes" from 1856 to 1868, and wrote several books on photography):—

"My experience of matters photographic dates from the year 1841. In that year I remember having my daguerreotype portrait taken by M. Claudet, on the roof of the Adelaide Gallery, in London. I was seated, one sultry summer afternoon, at about three o'clock, in the full blazing sunshine; and after an exposure of about a minute the plate was developed, and fixed with hypo. My eyes were made to stare steadily at the light until the tears streamed from them, and the portrait was, of course, a caricature. It has since faded. I paid a guinea for it. M. Claudet himself superintended the pose, and an assistant, a mere youth, prepared and developed the plate. In some conversation with M. Claudet about the wonderful art which he practised, he informed me, with the utmost gravity, that to achieve anything like success or eminence in it required the



chemical knowledge of a Faraday, the optical knowledge of a Herschel, the artistic talent of a Reynolds or Rembrandt, and the indomitable pluck and energy of a Hannibal; and under these circumstances he strongly dissuaded anyone from taking it up as an amusement. I thought of the youthful assistant who had really executed the practical part of taking my picture. I smiled at the principal's pompous and discouraging observations, and I determined one day to try my own hand at photography."

By the improvements to which we have alluded, the exposure required for a daguerreotype was much reduced; so that Thornthwaite, in his Guide, published in 1852, says: "The time usually required with a good achromatic (lens) and a well-constructed camera varies from one to sixty seconds." As a "tour de force" instantaneous pictures were occasionally secured by the daguerreotype process. Mr. J. Werge possesses one of New York Harbour (of which he has kindly sent me a copy), in which waves and ships in motion are clearly depicted. The exposure for this was probably about a quarter of a second. In *La Lumiere* for 1851, it is stated that "the fine views by Baron Gros, taken of the Port of Athens, sufficiently prove that this most admirable effect (of moving waves) may be very successfully obtained." But the successful instantaneous daguerreotypes could probably be counted on the fingers of one's hand. Nevertheless it was a beautiful process, and its total abandonment since the year 1862 or thereabouts is to be regretted.

*Daguerre's own "Instantaneous" Process.*—In Lerebours' "Treatise on Photography," published in 1843, we are told (p. 30), "Although many persons have had a doubt on the subject, it is perfectly true that M. Daguerre has discovered the means of producing really instantaneous impressions; that is to say, the horse at full gallop, the bird on the wing, the wave in motion, etc. But, unfortunately, these impressions are faint and clouded."

Daguerre communicated his method to M. Arago in 1844.\* It was a very long and complicated one, and so uncertain that we cannot find that anyone else obtained even the moderate degree of success with it which, according to Lerebours, attended the efforts of its inventor.

*Instantaneous Photography practised by Claudet in 1842.*—The following extract from the *Spectator* for April 16th, 1842, is sufficiently surprising. We are pleased to have disinterred it, as it is the first description (so far as we are aware) of a photograph having been taken "instantaneously." But the reporter evidently uses the word with a more liberal meaning than we should attach to it. The exposure which he describes was probably quite one second:

"It seemed sufficiently wonderful to have one's 'portrait in little' limned by the sun in a few seconds, but now it is done instantaneously. This magical celerity in taking photographic likenesses by the daguerreotype, at the Adelaide Gallery, is the result of some improvements in the process recently made by M. Claudet. The roof of the Adelaide Gallery is the scene of these operations, on which a chamber glazed with blue glass is erected for use in cold and rainy weather. Waiting your turn, and whiling away the time by trying to discern distant objects through the smoke, or looking at the steeple of St. Martin's Church that rises in bold relief before you, a courteous person invites your attention to a little square box that he holds, and, placing it on a stand directly opposite to you, begs you to remain steady for an instant. He lifts up the little dark curtain that veils one side of the cube-shaped box, and lets it drop directly. You suppose there is something wrong. Not at all; the thing is done! Whatever you look

was at that moment it is transfixed on the plate, and you may go to the little laboratory where the process of "fixing" is performed, and, as the moisture of the preparation is evaporated from the surface, see what was the precise expression on your face at the time. There is your image, as though a diminishing glass had perpetuated the reflection, only without colour. But what a hand! Surely you have not got such a huge fist? No; you happened to thrust it forward before the plane of the picture, and hence it has been taken under a different angle. You don't like to present a portrait with such a fist to the fair one to whom you have offered your hand, and you hesitate, though the likeness is so striking. M. Claudet perceives your embarrassment, and, anticipating the objection, says, 'Let us try again, if you please,' and the operation is repeated—ay, and a third time, if any accidental failure renders it necessary. Should you prefer it, a friend may share the operation, and, at the same moment, both phizzes will be transferred to the plate. We saw a loving couple taken in this way—nay, even groups of three; you may have a whole family enclosed in a couple of miniatures. The small size of the heads does not diminish the likeness; you might have a set of shirt-studs ornamented with portraits of your friends."

This early illustration of rapid work was doubtless given by Claudet to bring prominently before the public his discovery that by exposing the iodised silver plate used in the daguerreotype process to the vapour of chloride of bromine, or chloride of iodine, its sensitiveness was greatly increased.

*Instantaneous Photography by Claudet in the "Forties" and "Fifties."*—A. F. J. Claudet, born at Lyons, 1797, died December, 1867, was the first professional photographer established in England. In presenting to Claudet the silver medal of the Photographic Society of Scotland in 1860, Sir David Brewster said, "In the time of Daguerre, from twenty to twenty-five minutes were required to take the photograph of a landscape by this process, and nearly ten minutes to take a portrait.\* In this imperfect state of the art M. Claudet discovered and communicated to the Royal Society of London, in 1841, an easy and certain method of accelerating the action of light upon the film of iodine, and thus greatly shortening the process; by this means he obtained in ten seconds pictures which would have required four or five minutes by the preparation of Daguerre. So sensitive, indeed, was this new process, that M. Claudet was enabled to take portraits by the oxy-hydrogen light in fifteen or twenty seconds, with an object-glass at short focus. He obtained, also, impressions of black lace by the light of the full moon in two minutes, and by the light of the stars in fifteen minutes. He likewise obtained in four seconds an image of the moon, in which the shadowed parts were visible. In fifteen minutes he obtained the image of an alabaster figure by the light of a candle, and in five minutes a similar image from an argand lamp." All honour be to M. Claudet: he was the father of professional photography in this country.

CARDIFF AM: PHOT: SOC:—The ordinary meeting was held on the 26th ult., Mr. S. W. Allan in the chair. The chief topic of interest was an intimation from the Free Library Committee that they would be pleased to offer a gold, silver, and bronze medal, in connection with the County Survey, same to be open to all professionals and amateurs of the county; also a silver medal for competition amongst the members of the Society only. Mr. H. Booth reported that the Survey had made satisfactory progress, notwithstanding the bad season.

\* The landscape required more time because a smaller stop was used.—W. J. H.

\* *Comptes Rendus* for April, 1844.



## Optics.

BY A. R. F. EVERSHERD.

First Prize—Competitive Paper.

It is proposed in this paper, not to describe the optical principles involved in a photographic lens—for these the reader is advised to consult any elementary text-book on light, or to look up the subject in Abney's "Treatise on Photography"—but to point out as briefly as possible, firstly, the various points upon which amateur photographers are apparently mystified; secondly, the various forms of lenses used in photography; and thirdly, to give a few simple directions by which any can test for themselves a photographic lens.

(1) It will be necessary, when describing the various forms of lenses, to use certain technical terms, so that, to understand these terms better, a short explanation is here given of each.

**Aperture.**—By this is meant the size of the opening, or portion of the lens which permits the rays of light to pass through. If no diaphragm is used, it is the opening of the smallest combination of a lens; or if the combinations are of the same size, it is that of the front one; or if there is only one combination, it is the opening of this. When a diaphragm is used, it is the size of the opening in the diaphragm.

**Combination.**—Although a lens appears to be made of only a single piece of glass, it is in reality composed of two or more pieces of different density, such as crown and flint, cemented together. Each of these pieces is called a component, and the whole a combination. The reason why glasses of various density are used thus, is that certain natural defects in one piece of glass may be corrected by those of another.

**Depth of Focus** is the power which a lens has of bringing objects which are on different planes to a focus, that is, rendering them equally sharp. The depth of focus depends entirely upon the ratio between the equivalent focus and the size of stop employed; the smaller the stop used, the greater the depth of focus.

**Diaphragms or Stops.**—These are blackened pieces of brass perforated with holes; or, instead, what is known as the Iris diaphragm is employed; this consists of several segments of a circle working on pivots attached to a ring in the lens mount; by rotating this ring the aperture formed by the segments can be increased or lessened. The advantage of an Iris diaphragm is that no loose stops are carried, so obviating any risk of loss. Whatever the form, the function of the stop or diaphragm is to allow only parallel rays to pass through the lens, so reducing spherical aberration, and increasing the depth of focus.

**Distortion** is present in single lenses. By distortion (true) is meant the bending inwards or outwards of straight lines at the edge of the subject, such as the side of a house, etc. Where, however, the subject is pure landscape, this distortion is of no consequence.

Another form of distortion (apparent) is that given by wide-angle or short-focus lenses. In this the perspective is intensely exaggerated, so that the end of a church, if nearest the camera, will appear to be three or four times as big as the spire; for this reason, wide-angle lenses should be used as little as possible.

**Flatness of Field.**—The rays from an object passing through a simple lens do not meet all at one point, but at points equally distant from the lens, and the image is really curved; hence we get roundness of field.

To correct this roundness of field is one of the reasons why a lens is made up of different components.

**Equivalent Focus, Focal Length, or Focus.**—Parallel rays passing through a convex lens meet at a point on the opposite side of the lens. This point is the focus of the lens, and the distance of the point from the lens is the equivalent focus or focal length of the lens. *Vide fig. 1.*

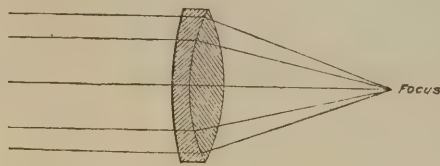


FIG. 1.

In photography this point may be ascertained sufficiently accurately for all practical purposes, by obtaining the image of an object over twenty yards away on the ground-glass or focussing screen, then measuring the distance, in the case of a single lens, from the lens to the front of the screen, and in a rectilinear or doublet lens from the stop to the same place; this distance is the equivalent focus. The expression "back focus" is a trade term, and should be discarded.

**Rapidity** of a lens always depends upon the aperture of the diaphragm, and not upon the form of lens. It can be better understood if the lens is supposed to be a window, and the stop a curtain; now when no stop is put in the lens, the focussing screen is well illuminated, but if stops gradually decreasing in size are placed in the lens, it will be seen that less and less light passes through the lens, corresponding to the drawing of the curtain over the window, and in consequence the focussing screen is proportionally darkened. The diaphragms of a lens are marked  $f/8$ , or  $f/11$ , or  $f/16$ , and so on; by this is meant the aperture of the diaphragm is  $\frac{1}{8}$ , or  $\frac{1}{11}$ , or  $\frac{1}{16}$  of the equivalent focus of the lens. For instance, a lens is ascertained to be 8 inches equivalent

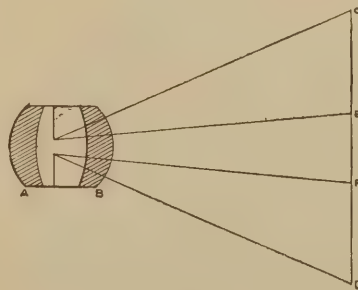


FIG. 2.

focus, and the diameter of the diaphragm aperture is  $\frac{1}{8}$  inch, then  $8 \div \frac{1}{8} = 64$ ; therefore that stop is said to be  $f/8$ . By this means, if the diameter of the apertures and the equivalent foci are known, any lens can be compared with another with respect to rapidity, and also one stop against another, and so a comparison made of the exposures required with various lenses and various stops. For example, a rapid rectilinear lens is 10 in. equivalent focus, and the aperture of the stop  $1\frac{1}{4}$  in., then that stop is  $f/8$ . It is desired to compare this lens with a wide-angle of 6 in. equivalent focus and aperture  $\frac{3}{8}$  in., therefore the stop is  $f/16$ ; now by squaring 8 and 16 the result is respectively 64 and 256, and dividing the latter by the former we have as the result 4; hence we say that the rapid rectilinear is four times as quick as the wide-angle, and therefore will need one quarter the exposure required by the latter lens on the same subject. To compare one stop with another



the same method is employed; hence the importance of having the focal or  $f$  values of the stops correctly marked.

*Angle of View of a Lens.*—This also depends entirely upon the ratio between the size of plate used and the focal length of the lens, and not upon the form of the lens; for example, in the diagram (fig. 2), if  $AB$  is a lens of short focus, and hence giving a wide angle on a whole-plate  $CD$ , then the same lens on a quarter-plate  $EF$  will give a narrow angle, or, in other words, the amount of subject included on the whole-plate will be greater than that on the quarter-plate.

## (2) VARIOUS FORMS OF PHOTOGRAPHIC LENSES.

*The Single lens*, known under many various names, is that usually supplied in cheap sets; it is also made and sold for the special purpose of taking pure landscape, and heads in large size. However well made, every single lens has two faults; it gives curvilinear distortion; and also is slow, owing to it being necessary to employ a somewhat small stop to correct inherent defects.

Recently a single lens has been introduced by Dallmeyer, in which the back component is curved in a different direction to the other two, and there is an air space between the back component and two front. The special advantage of this lens is that it is free from distortion, but it is necessarily a slow lens.

The supposed advantage of the single lens over others is that it gives, owing to the fewer reflecting surfaces, a more brilliant image, and also it is a less expensive lens in its commoner forms; but the writer cannot say that he has found much difference in the brilliancy when comparing a single lens with a rectilinear.

*The Rapid Rectilinear*, or Symmetrical, known also under numerous fancy names, such as Paragon, Delineator, Aplanat, etc., consists of two exactly similar concavo-convex combinations set in the mount a certain distance apart with their concave surfaces towards each other, the opening for the stop being in the space between, whereas in the single lens it is in front of the combination. It is undoubtedly the most useful form of lens; it has a greater rapidity than the single lens, its rectilinearity or correction for distortion is perfect (or should be), and it is adapted for almost every form of work done by an amateur.

*The Wide-angle Rectilinear.*—This also has had other names applied to it. The difference between it and the previous lens is that the wide-angle is of shorter focus, and hence gives, as its name implies, a wider angle. It is only of use where it is impossible to get far enough away from a subject to allow of the whole of it being represented with a longer focus lens; it is a most difficult lens to work with properly, and its use should be avoided whenever possible.

It consists of two combinations, not necessarily alike, but both concavo-convex, set quite close together.

It is a slow lens, working at a smaller aperture than the rapid rectilinear.

*The Portable Symmetrical* is a lens of medium angle, coming between the rapid and wide-angle rectilinear, and is an exceedingly useful lens. It consists of two exactly similar combinations set quite close together; it is not quite so rapid as the rapid rectilinear, but more so than the wide-angle.

*The Portrait Lens* is not required by an amateur. It consists of two dissimilar combinations, the back combination having an air space between its components. It is more rapid than any other lens, and this is all that can be said for it.

*The Euryscope.*—This lens, for rapidity, comes midway between the rapid rectilinear and the portrait lens. It consists of two exactly similar combinations like the rapid rectilinear, works at an aperture of  $f/6$ , and will, probably, by some be preferred to the latter lens.

## (3) THE CHOICE AND TESTING OF A LENS.

If only one lens can be afforded, then a rapid rectilinear of equivalent focus,  $1\frac{1}{4}$  or  $1\frac{1}{2}$  times the base line of the plate, should be chosen. If funds permit of more being purchased, the writer, from a considerable experience, can advise the following series:—(a) A wide-angle rectilinear, focal length equal to  $\frac{5}{8}$  of the base line; (b) a portable symmetrical or similar lens, of focal length about once the base line; (c) a rapid rectilinear as above; and (d) a long-focus single lens, the equivalent focus of which should be  $2\frac{1}{2}$  times the base line.

It is useful to know how to examine a lens with a view to its quality, and though it may be taken for granted that a lens bearing the name of an English manufacturer is a good one, still the best lenses may vary. The following are methods which can be employed by any amateur:—

(1) *Achromatism*, or coincidence of chemical and visual foci. Test by placing a row of books close together, each being slightly in advance of the other, on the table, then focussing with open aperture for the central one, and exposing a plate. If on examining the resulting negative the book focussed is quite sharp, and the others gradually become more and more blurred, the lens is achromatic and the foci coincide.

(2) *Bubbles* in a combination need not necessarily condemn a lens, unless they happen to be in the centre, or are numerous; at the worst they but tend to render the lens slower.

(3) *Centering.*—If the combinations of a doublet lens are not truly centered, this can be detected by holding the lens about half a yard away from the eye and looking through the lens at a single gas or candle flame. Several images of the flame should be seen, and if correctly centered, by rotating the lens, one ought to be able to bring these together, one behind each other in a direct line.

(4) *Colour of Glass.*—Unscrew the combinations, and place them upon a piece of white paper, and note if there is any degradation of colour of the paper as seen through the lenses.

(5) *Definition.*—Focus an enamelled watch dial, placed not less than ten times the focal length of the lens away from the lens, using the largest diaphragm; examine the image on the ground-glass screen—the fine markings of the seconds circle, and the horizontal and vertical markings of 3 and 12 o'clock should be seen.

(6) *Distortion* is of two kinds, as previously noted. The apparent is easily detected in the prints. To test for curvilinear or true distortion, place the camera quite level opposite a subject with straight vertical lines, such as the side of a house, or a window frame. Employing the largest diaphragm, focus one of the vertical lines, and note that it is perfectly straight in the centre of the screen; now rotate the camera till the line is at the edge of the screen. If the line is still quite straight, the rectilinearity is fully corrected.

(7) *Flare Spot*, a spot of light fogging the plate at its centre. If present, it condemns a lens at once. To test for it, focus a mass of trees which rather more than half cover the plate, with a bright sky above to shine upon the lens. If the fault is present, it is readily seen by inserting a small stop, and examining the centre of the screen for a luminous circle.

(8) *Flatness of Field.*—Having with full aperture sharply focussed an image on the centre of the screen, note how far the image can be moved away from the centre, by rotating the camera, without impairment of definition.

(9) *Spherical Aberration* causes a blurring of the image. To test for it, focus, with full aperture, a candle flame on the ground glass, and examine with a magnifier for a halo round



the flame. If one is present, the spherical aberration is not properly corrected.

(10) *Surface Finish*.—The surfaces of each combination should be highly polished. Examine them with a powerful magnifier, and note if there are any irregularities or unequally polished portions.

The following is a list of the better known English firms who really manufacture lenses, from the grinding of the rough glass upwards:—Dallmeyer; Swift; Ross; Beck; Wray; Taylor, Taylor and Hobson; Crouch; Burr; Chambers; and Grubb, of Dublin.

## Our Contemporaries.

THE *American Journal of Photography*, speaking of "Success in Portraits," says, "It should be the emulation of all who feel a true interest in photography to produce some fine heads. A truly fine photographic portrait is indeed an admirable thing to look upon. The human countenance, constituted as it is of a number of features, is a remarkable work of nature. The eyes, nose, and mouth, the principal ones, contain such a variety of outlines and modelling that each is in itself a study. Whenever we go in the least out of the usual and commonplace, and enter upon the realms of the beautiful, the intellectual, and the picturesque, we have in a fine portrait, to persons of cultivation, and to artists especially, a picture worthy of interesting study, and more or less of admiration. To the masses a portrait, except as a likeness of some one, has no more interest than the card that it is mounted upon. But let anyone have spent a little time in attempting to draw and paint faces,—see with what a different eye he will observe any good photographic head placed before him. He will begin at once to analyse it—the general shape of the head, the relative proportion of the features to one another, the expression, and the infinite variation of delicate lights and shadows which constitute its surface modelling, will all be carefully observed. What delight he will find in the curves and flowing lines of the hair, the brilliant life-like look of the eyes, the drawing and modelling of the nose, and the various inflections of the mouth. But what do we get of all this in a common, everyday photograph? Little or nothing we are sorry to say. For the sitter has been placed in a raking, strong top-to-bottom light, falling chiefly upon the edge of the face. Little attention has been paid to securing, by careful exposure and development, the exquisite half-tones which constitute the perfection of the art, and all deficiencies have been sought to be atoned for by an abundant amount of indiscriminate retouching, which has robbed the face of those touchings and marking of character which nature has placed there as belonging to her book of truth." Articles: "Tone Colour Values in Photography," "Permanent Historical Photographs," "Photography in Colours," "Astronomical Photography," "Hints on Photographic Portraiture," etc.

The *Bulletin de la Société Française* says, "Many persons had given up the use of preparations of bromide of silver for positives because the colour cannot be modified by subsequent toning. Dr. Miethe indicates the way to get over the difficulty. The operation is commenced by transforming the image into chloride of silver by means of the following bath:

Water ... ..	1,000 parts.
Alum ... ..	20 "
Bichromate of potash ... ..	10 "
Hydrochloric acid ... ..	20 "

The operation is completed in a few minutes. The print is then carefully washed, and then exposed to the light for about two minutes, and developed with the citric acid developer. According to the exposure to the light, the colour varies from red to black, passing through the brown tones. If desired, the prints can then be toned in the ordinary way."

The *Photographisches Wochenblatt* gives the following receipt for making a cheap printing frame:—Take any old or spoiled glass negative of the proper size, and cut it in two, then join the two pieces together by pasting a strong piece of black muslin over one side of both pieces. When thoroughly dry this will form a hinge. For use, place the sensitive paper on the negative, to be copied in the usual manner, then a piece of blotting paper, after which place the cut negative, muslin side up, on the paper,

and secure the whole with four spring clips or clothes pins, and print in the usual manner."

*Amateur Work* contains an illustrated article describing how to make a dissolver for a single lantern.

The *Photographic Herald and Sportsman*, speaking of "The Educational Value of Amateur Photography," says, "What better discipline for our youth can be found than the manipulation of photography? It is doubtful if any other occupation can better train the eye to see and the head to execute. The work is many sided. The mechanical appliances are so numerous as to give scope to the most fertile invention; the knowledge and handling of the numerous chemicals required, afford a most excellent laboratory practice. Perhaps in no other employment is the eye so well trained to see; and last, but not least, is the development of artistic taste. The boy learns as in no other way, the value of that most subtle and invisible agent, light; and in various tones of his positives he receives a valuable object lesson in colour. Furthermore, a signal benefit is derived from all these processes by the neatness, accuracy and patience that they imperatively demand. Were it necessary, indeed, to prove our proposition, the moral benefit involved might be much enlarged upon. The mistakes to be corrected, disappointments to be endured, and patience to be exercised before success can be counted upon with any degree of certainty, cannot but discipline and strengthen the character."

*L'Amateur Photographe* contains an illustration and description of a new and real detective camera, which is hidden behind a made-up tie. The description says, "It will be seen that the tie attracts no attention when resting on the shirt front of the peaceful promenade, the lower part of the dark chamber being hidden under the waistcoat. The mechanism is protected by a casing, which, together with the tie, is little more than five millimetres in thickness. A button at the end of a string is pulled to set the shutter, and the button is hidden under the waistcoat. By turning a button coming through one of the button-holes of the waistcoat the plates are changed, and the shutter is released by pressing a pneumatic ball, which is in the trousers pocket." The camera carries six plates, carried in separate cases attached at intervals to a small endless chain. The front of the lens occupies the place of the pin at the top of the tie, and, being ornamented, attracts no attention. The camera is not yet on the market, as the inventor, M. Bloch, 2, Rue de l'Entrepot, Paris, is putting it to a severe test.

## Science Notes.

I AM glad that Mr. Watkins is interested in the "wanderings of Little Nell;" but until he goes over the ground with Dickens's book in his hand I do not see how he can attempt any identification. Of course, if Dickens *did* "blend the characteristics of one town with the geographical position and other peculiarities of another place," any attempt on the part either of Mr. Watkins or myself to illustrate the route would be little better than absurd. But the great novelist was too true a craftsman to do anything of the kind.

Ever since the publication of the "Old Curiosity Shop" it has been well known in the literary world that Tong was the village which Dickens had in his mind when writing the account of the "death of Little Nell;" but I believe no correct identification of any other part of the route had been published before the appearance of my note last week. I think Mr. Watkins is quite incorrect in supposing Dudley to be the scene of "Mrs. Jarley's wax-work show." I have, as I believe, identified Warwick as the town with which this part of the story is associated. But I hope to write an illustrated article on the subject shortly, as it is quite impossible to discuss the matter in the limited space at my disposal in this column.

Iridium is a scarce metal, which has been used for tipping the points of stylographic pens, and with which a Parisian photographer recently obtained some good prints, similar in tone to platinotypes. But the astounding news comes to hand that "two-thirds of all the iridium in the world has been used to make the metric standards recently distributed by the International Congress to the Governments of all nations." It was distinctly unkind of the Congress to use up so much of a metal which was about to find an application in photography!

At the recent Leeds meeting of the British Association, Dr.



Tempest Anderson exhibited a valuable series of photographs of landslips and volcanoes in Iceland.

The new volume (xlviii.) of the Proceedings of the Royal Society contains some valuable papers from Mr. and Mrs. Huggins on their recent work in the examination of the heavenly bodies with the spectroscope. They have obtained photographs of the Great Nebula in Orion, which show that the spectrum (and therefore the chemical constitution) of one part of the nebula differs from that of another part. They also record the discovery of six new lines in the ultra-violet portion of the spectrum of Sirius, the brightest star in the northern heavens.

Mr. Burnard (a member of the Council of the Devon and Cornwall Camera Club) has just published vol. i. of "Dartmoor Pictorial Records," a book about which the reviewer in the *Athenæum* (September 27th) says "he has, with the aid of the camera, brought before our eyes a series of very charming views of conspicuous objects on the Moor." This is another example of the spread of systematic work which we have so long recommended. The book is published by Brendon and Son, of Plymouth.

The first number of the journal of the Gizeh Museum, entitled *Musée Egyptien*, has just appeared. It consists of twenty photographs having no titles and with no accompanying text. The pictures themselves are, however, of high interest.

Messrs. Sampson Low and Co. announce the early publication of a book of great interest, "Wild Life on a Tidal Water: the History of a House Boat and Crew," by Dr. P. H. Emerson and T. F. Goodall. The book will be illustrated by forty photographs from Dr. Emerson's negatives.

The new drop-curtain of the Broadway Theatre, New York, is a copy of a famous French picture, of which a photographic transparency was made, which was then used as a lantern-slide. The picture being thrown by the lime-light upon the immense canvas, it was quickly sketched in by the artists employed, the result being a great saving of time and expense. F. G. S.

## Notes from the Liverpool Centre.

(By our District Editor.)

THE meeting of the Liverpool Society last Thursday was numerously attended and highly successful. Several well-known members of other local societies put in an appearance, and announced themselves as more than satisfied with the proceedings. Mr. W. I. Chadwick's illustrated lecture on "Stereoscopic Photography" was a rich treat. The lecturer exhibited many specimens of his work, and throughout the whole course of his remarks he was followed with the closest attention and the liveliest interest. Presumably the result of his lecture will be that a number of our workers will devote themselves to stereoscopic photography with no uncertain enthusiasm. This is the general feeling, at all events. Mr. Chadwick has promised to send a large selection of his pictures for exhibition in the Liverpool rooms.

The late excursion from Liverpool to Haddon Hall was successful. The excursionists had a fine day, making 120 exposures and eleven sketches in water-colour. The party left Liverpool in two first-class compartments at 7 a.m., returning home at 9.30 p.m.

Mr. J. S. Gladstone, who, by the way, is a nephew of the ex-Premier, has presented a superb album to the Liverpool Society, containing between thirty and forty pictures on Eastman bromide paper taken during the Lange expedition to Iceland. The pictures, half-plates, are capital. Mr. Gladstone returns to business in Calcutta in a few days.

Mr. G. E. Thompson is expected to give the first of the 1890-91 practical demonstrations at the Liverpool Association next Wednesday; subject, "Lantern Slide Making." The same gentleman is to show a set of studies taken on the Continent, at the next meeting of the Birkenhead Society. These views are to be followed by the Boston new set of "The White Mountains."

At the Blackburn Exchange, shortly, Mr. E. M. Tunstall will give his "Normandy," a series of about 100 views. This is to be made a special feature by the Blackburn amateurs, who promise a large attendance.

Our members are once again falling into line for serious work indoors and at the various rooms. The Formby, Walton, Wallasey, and other Secretaries promise me details at an early date.

Mr. Fred Anyon has secured a remarkable cloud effect from the Bootle Jetty—a kind of promenade on the Mersey. He intends the picture, I believe, for the 1891 Liverpool Exhibition.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BATH PHOT. SOC.**—The eighth and last of this season's excursions took place on Thursday, the 25th ult., when the members visited Newton St. Loe. Newton bridge, from the city side, was the first subject chosen. The sky was overcast, but some fine effects of light and shade were obtainable. Resuming the journey, Salford was reached within an hour of the start. Here several plates were exposed in the village and at the landing-stage. Crossing by the ferry to the Kelston side of the Avon, a short journey on foot led to the lock and weirs facing the boating station, and here a variety of subjects were presented, including pastoral and woodland as well as aquatic. The ferry re-crossed, a smart drive was next taken to Swinford Weirs, a little distance up the river in a westerly direction, and here the now declining sun, with its attendant long-east shadows, produced scenic effects of the most charming description. The journey home was made through scenery which it would be difficult to excel. Mr. H. S. P. Wells acted as leader on this occasion, and it may with confidence be said that amateurs visiting Bath cannot do better than follow the example set by the local society. The indoor meetings will be resumed on the 29th inst.

**BIRMINGHAM PHOT. SOC.**—The ordinary meeting was held at Colonnade Hotel, on the 25th ult., Mr. W. Jerome Harrison, F.G.S., in the chair. Mr. Pickard gave a report of the Bristol excursion. Mr. Longmore exhibited some pictures taken in North Wales, and Mr. Leeson some of North Devon, taken with an Underwood's hand-camera, which he found everything to be desired. Mr. Sershall then gave a very interesting paper on "Art in Drawing and Photography."

**DUKINFIELD PHOT. SOC.**—The ordinary monthly meeting of members was held on the 23rd ult., Mr. W. H. Shirley (President) in the chair. The Hon. Sec. read a paper on "Stereoscopic Photography," and exhibited a complete set of stereoscopic apparatus. Mr. A. Sampson reported on the ramble to Marple and Strines. Seven members went with seven cameras, and thirty plates were exposed. Messrs. R. Matthews and Geo. Wield showed some splendid negatives and prints taken on the above ramble, which were greatly admired by the members present. The Council have arranged that the next monthly meeting, Oct. 21st, shall be an open lantern meeting, the members to exhibit slides from negatives taken during their holiday tours.

**HACKNEY PHOT. SOC.**—The ordinary meeting was held on the 25th ult., Mr. Beckett presiding. Messrs. Hensler, Gosling, and Dean passed round views they had taken whilst on their holidays, and they were commented on by the members present. The Secretary showed "Le Tison Eclair," a flash-lamp of French make, the flash being brought about by magnesium blown through an ordinary match flame. After reminding members that the entry forms for exhibition purposes were now ready, the Chairman called on Mr. W. L. Barker for his paper on "Shutters." There were between twenty and thirty different makes of shutters for the lecturer to comment on, which incidentally he did. After mentioning the various positions in which shutters were used, he proceeded to state his opinion that undoubtedly the most correct position for a shutter was between the lenses, as the illumination was more even, and the shutter was practically faster. He was, moreover, of the opinion that the centre required less lighting than the margins of a picture. He said that the moving part should be extremely light, so that there should be no kick or jump, thereby causing vibration, and advocated the use of a shutter which had no parts to get out of order. He showed his Newman shutter with a pin attached to the central screw, a contrivance he had constructed to tell at a glance whether the shutter was set or no. If it was, the pin would rest at a given point (indicated). The best position for a shutter on a hand-camera or studio lens was better at the back of a lens, as it was then unobtrusive. The Chairman preferred the ordinary plain drop-shutter, which he judged roughly fell at one-tenth of a second. He generally tested a shutter with the aid of a bicycle wheel. Mr. Barker said he had done so with the result that experience showed as follows:—Newman's one-fiftieth equalled one-twentieth, and the plain drop one tenth of a second.



**HARLESSEN AND WILLESSEN PHOT. SOC.**—At a meeting held on the 23rd ult., a demonstration on "Platinotype Printing and Developing" was given by the President, Mr. J. Naylor. The prints chosen for experiment proved most satisfactory in the hands of the demonstrator, and very pleasing results were obtained. The next meeting will be held on October 7th, when a lecture, with lantern illustrations, will be given by Mr. W. D. Welford, entitled "Hand-Camera Work."

**HOLBORN CAMERA CLUB.**—A great treat was experienced by the members and friends of the above Club on Friday, the 26th ult., when the "White Mountain" set of slides, kindly prepared and lent to this country by the Boston Camera Club, was shown to an appreciative audience. A hearty vote of thanks to the Boston Club was proposed. Other societies who may be having these slides should note they are 4 by 3½, and get carriers accordingly.

**IPSWICH PHOT. SOC.**—A special meeting was held on Thursday, the 25th ult. Mr. J. D. Piper presided, and the principal business was to elect an Hon. Secretary in place of Mr. E. R. Pringle, who is about leaving Ipswich for an appointment in Sussex. On the motion of Mr. Wiggins, seconded by Mr. Cash, Mr. Leonard Hill was unanimously elected to the vacant post. In the name of the Society, Mr. Piper then presented Mr. Pringle with one of Ashford's patent camera stands (in waterproof case), a handsome album, a bag, etc. He spoke in complimentary terms of the valuable services rendered to the Society by the retiring Hon. Secretary, who was leaving (he added) with the hearty good wishes of the members for his future success and prosperity. Mr. Pringle acknowledged the gift in suitable terms, and spoke feelingly of the pleasant times he had passed with his photographic friends. On Saturday an excursion took place to the grounds of the Chantry, near Ipswich, when good work was done.

**LEICESTER AND LEICESTERSHIRE PHOT. SOC.**—The last excursion of this society for the season took place on the 26th ult., when a few of the earnest workers, in spite of the unpropitious weather, journeyed to Ashby Castle. After a time the improvement in the light fully justified the faith of those who ventured, and a series of most satisfactory exposures were made on the ruins of the ancient structure. The party then drove to Hoo Ash, the residence of Jas. Jones, Esq., Ravenstone, who had kindly invited the Society to accept his hospitality. After a tour of the vinery and greenhouses, the party had a pleasant walk through a typical country lane to the village, where some pretty bits and the interior and exterior of the old church afforded ample scope for the exercise of the art, the interior having been lately restored. When the light had so far faded as to render

photographic work no longer practicable, the members returned to Hoo Ash, where the hostess awaited them with a bountifully spread tea-table.

**NORTH LONDON PHOT. SOC.**—The meeting was held on the 16th ult., Mr. Bishop in the chair. The evening was a technical one, and various negatives and prints were shown and criticised. The annual meeting will be held on November 4th.

**NORTH MIDDLESEX PHOT. CLUB.**—The ordinary meeting was held on the 22nd ult., Mr. Lathbridge in the chair. Some apparatus having been shown, Mr. Beadle read a paper on "Lantern Slide Making," in the course of which he demonstrated the processes he described. The next meeting will be held on the 13th inst.; Mr. D. P. Rodgers, who has been photographing in Egypt this summer, will give a lecture, entitled "Pictures of Egyptian Life," illustrated by lantern slides made by himself.

**SHEFFIELD CAMERA CLUB.**—A general meeting of this Club was held in the Society's rooms, on the 24th ult., when a lecture was given by Mr. J. H. Rawson, entitled "Wet Process of Photography." The process was described in a very clear and attractive manner, affording much pleasure to the members. Several plates were coated, exposed, and developed during the evening.

**TOOTING CAMERA CLUB.**—The first general meeting of the above Club was held at the High Schools, Church Lane, on the 23rd ult., Mr. J. H. Beckett in the chair. The rules as drawn up by the Committee were read and approved. The following officers were elected for the ensuing year, viz.: President, Mr. A. H. Anderson; Vice-President, Mr. J. H. Beckett; Hon. Treasurer, Mr. C. Stowell; Hon. Sec., Mr. G. H. Dollery; Committee, Messrs. W. Irwin, J. F. Child, S. J. Blazdall, and H. Berger. It was decided that the name of the Society, "The Tooting Amateur Photographic Society," should be altered to the above. Ladies and gentlemen desirous of becoming members are requested to communicate with the Hon. Sec., Mr. G. H. Dollery, "Ivy-thorpe," Vant Road, Tooting Graveney, S.W.

**WEST LONDON PHOT. SOC.**—A special meeting convened for the purpose of allowing members to see the new premises of the Society was held on the 26th ult., the President, Mr. Charles Bilton, occupying the chair. The meeting was of an informal character, there being no special business to transact. The Chairman reminded the members that the annual general meeting would take place on October 10th. The Secretary then exhibited the fusée repeating flash-lamp, introduced by Messrs. Adams and Co. The "perpetual" shutter by the same firm was also shown. Negatives and prints therefrom taken during the summer were then handed round and criticised, after which the proceedings terminated.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4205. **Thomas's Hydroquinone Developer.**—Would one of your readers oblige me with Thomas's formula for hydroquinone?—**BROMIDE.**

4206. **Newman's Shutter.**—I should be glad if any of your readers would tell me the price and recommendations of Newman's quarter-plate shutter.—**BROMIDE.**

4207. **Rivot's Paper.**—Could any one tell me if Rivot's self-toned paper gives good results?—**BROMIDE.**

4208. **Changing Back.**—Will some reader give me instructions for making a changing back to hold one dozen plates, for quarter-plate camera.—**POOR JACK.**

4209. **Blisters on Bromide Paper.**—Will some one kindly inform me how to prevent blisters in bromide paper. The blisters come during the washing after fixing. It is Fry's Argentytype paper which I have been using.—**L. S.**

4210. **Transparent Defects.**—Will some one kindly inform me how to retouch transparent defects in a negative, and what to use for that purpose?—**L. S.**

4211. **Intensification.**—Could some one kindly explain the following:—I was intensifying some negatives. They bleached all right to a nice creamy white. I put them under running water to wash, and in about half an hour they were much greyer and thinner; holding them up to the light, the opacity they had after coming from the mercury bath was to a great extent lost, and when blackened with ammonia they were only a trifle denser than at first, but good clean negatives, though weak. One of them by mishap was placed so that the stream of water did not cover one corner of it and it was not fully washed, in fact it got partly dry; consequently this portion retained its creamy opacity which prolonged washing failed to reduce to a level with the remainder of the negative, but in about one hour it became nearly level. When blackened, this portion intensified in proportion to its opacity before being placed in the ammonia bath, but it is only a corner of a sky and can be reduced. Does the sulphite of soda bath reduce negatives if left in it after they are blackened. I had some reduced when using this bath, but the text-books are silent on the subject as

far as I have seen. I did not use bromide potass. with the mercury—simply one-third saturated solution. Is it essential to use the bromide for sulphite intensification and what is its use?—**B. T. F.**

4212. **Enlargement.**—Would some one oblige by letting me know next week the probable exposure required for enlarging from a quarter-plate negative to 10 by 8, using Eastman's bromide paper and Hughes's Pamphengos lantern.—**C. J. E.**

4213. **Biarritz.**—Will any one tell me whether I can buy Ilford plates, chemicals, etc., in Biarritz, and whether there is any dark-room for the use of amateurs. I should be glad of information as to taking photographs there during the winter.—**F. A. D.**

4214. **Carbon Printing.**—Will any one recommend me to any one where I can get some good carbon printing done at a low price?—**G. B.**

4215. **Syphon.**—Can any one tell me where I can obtain a simple syphon for filtering varnish, or give plain instructions for making same. I want the address, not an idea where it can be got.—**G. B.**

4216. **Developer.**—What is a reliable developer for copying purposes?—**G. B.**

4217. **Clearing Varnish.**—How can I clear some negative varnish made with alcohol shellac and a little whiting. I have let it stand and then filtered it continually, but still cannot get it clear.—**G. B.**

4218. **Pyro Formula.**—Wanted the best formula for a 10 per cent. solution of pyro with acid sulphite; also can any one recommend it?—**G. B.**

4219. **Liese's Aristotype Paper.**—Can any one tell me why prints on this paper, after toning very satisfactorily, turn a sickly yellow colour on placing in fixing bath? Have placed prints direct from toning to fixing bath, also after short and long washings. Have tried 1 oz. hypo to half pint water, and 2 oz., and with and without ammonia, but with the same result. Twice, by the same process, the colour did not change.—**PUZZLED.**

4220. **Dark-Room Lamps.**—Will some one kindly tell me if an ordinary small paraffin lamp could be safely used in a dark-room, if I got a ruby or yellow



chimney to fit it? Also inform me where such chimneys can be obtained. Also the name of any maker who supplies an inexpensive oil lamp showing red or yellow light at will.—**DIFFICULTIES.**

4221. **Fixing and Clearing Solutions.**—Will some one tell me if the alum and hypo solutions used for hardening and fixing can, as the books generally inform us, be used and will keep indefinitely. I find in a very short time the alum turns to a deep brown, and a black sediment settles at the bottom of the hypo bottle. When this takes place, are the solutions useless?—**DIFFICULTIES.**

4222. **Diagrams and Pictures on Enamelled Iron Signs.**—How are diagrams and pictures produced on enamelled iron or copper-plate signs in the trade? What is the most practical process to produce them, as well as the writing constituting the signs?—**P. CASSIN.**

4223. **Kendal.**—Will some brother amateur inform me whether Kendal is a good place to spend a week photographing? Also the name of the Kendal newspaper.—**DOMO.**

### QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.

18th.—Nos. 4009, 4020, 4027.

25th.—Nos. 4036, 4045.

Aug. 8th.—Nos. 4061, 4066.

22nd.—Nos. 4089, 4090, 4096, 4100, 4104.

29th.—Nos. 4116, 4123, 4124, 4125.

Sept. 5th.—Nos. 4129, 4131, 4133, 4136, 4137, 4141, 4143.

12th.—Nos. 4149, 4150, 4151, 4152, 4153, 4154, 4157.

19th.—Nos. 4161, 4163, 4166, 4167, 4168, 4172, 4173, 4174, 4179, 4180.

26th.—Nos. 4186, 4191, 4192, 4193, 4195, 4196, 4197, 4198, 4203, 4204.

### ANSWERS.

4183. **Walking-Stick Stand.**—Messrs. Fallowfield advertise what you want. I cannot lay my hand on it now, so cannot tell you the price.—**W. A. J. CROKE.**

4183. **Walking-Stick Stand.**—I think Fallowfield keeps one that would suit you. It is self-contained, and has a table top, price one guinea. Vevors, of Leeds, also has a table-topped stand, but that requires the assistance of guy ropes, which make it cumbersome.—**THE TURTLE.**

4184. **Chagford.**—"Cornubiensis" will find some lovely views in the Upper Teign Valley between Fingle Bridge and Chagford Bridge. There are some nice bits on Dartmoor, near Chagford, such as Post Bridge, Caistor, etc.—**SIR ROGER.**

4187. **Cloud Printing.**—The following plan will enable "Clouded" to print in skies without showing a hard line.—On removing the print from the printing frame, paint the edge of the sky line and all objects appearing above it with Indian red water-colour, paint about the eighth of an inch wide, taking care that the paint does not extend beyond the edge. Should it do so, a white spot in the finished print will be the result. Cut out a mask in orange paper, so that it shall cover the print to within about one-sixteenth of an inch of the outside edge of the painted line. Adapt the mask to the print; the whole is thus protected from the action of light. Place the masked print on the cloud negative, and print in the usual way. The clouds will fit the most delicate line with no perceptible join. On washing the print before toning, the paint can be easily removed with a camel-hair brush. A letter clip is a convenient article for keeping the mask in position whilst placing the print on the negative.—**A. T. NEWINGTON.**

4188. **Best Developer.**—For a general subject, and especially for an unknown exposure, I should certainly advise "Morianni" to use a slow soda developer, such as:—

A.	
Oxalic acid	50 gr.
Pyrogallie acid	32 "
Brom. ammon.	16 "
Water, to	1 pint.
B.	
Soda carb.	1½ oz.
Water, to	1 pint.

Use equal parts to start with, and when development is fairly up, add a little more of B. Development should take about eight minutes. It gives greater density than any other developer whatever, and for a normal exposure greater detail. It will often make something of a plate that ammonia or quinol would quite spoil. I cannot recommend "Morianni" to use eikonogen.—**THE TURTLE.**

4188. **Best Developer.**—There are so many different kinds of developer—some preferring one, some another. It entirely depends what sort of work you want it for. For bromide paper and lantern slides you will find this a suitable one:—

A.	
Protosulphite of iron...	1 oz.
Bromide of potassium...	5 gr.
Sulphuric acid...	A few drops.
Water	5 oz.

B.	
Oxalate of potash	4 oz.
Potassium bromide	20 gr.
Water	1 pint (20 oz.)

Mix one part of A to two parts of B.

The pyro and ammonia is perhaps the most universal. Here is a simple formula:—

A.	
Pyrogallie acid	1 oz.
Citric acid	60 gr.
Water (distilled)	7 oz.

B.	
Potassium bromide	60 gr.
Ammonia solution	4 drms.
Water	12 "

1 drms. of solution A and 15 drms. of water, equal a solution containing 3 gr. of pyro to the ounce. Then you have the hydroquinone. There are several good ones—The Hetherton Lewis, Thomas, Edwards, and Stephens (one-solution), to be procured from Whiteley's, of Westbourne Grove, and is a thoroughly reliable developer.—**W. A. J. CROKE.**

4189. **Eikonogen.**—Try the following. I can guarantee the results:—

A.	
Soda sulphite	4 parts
Eikonogen	1 part
Water	60 parts

B.	
Washing soda	3 parts
Water	20 "

Mix three parts of A to one of B. Do not use bromide, unless over-exposed. If so, keep it in a different bottle.—**W. A. J. CROKE.**

4190. **Dresden.**—E. Kaders, 12-14, Grunauer Strasse, Dresden, A., is a reliable dealer in photographic materials, and makes the supplying of amateurs a special branch, so he probably has a dark-room to put at their disposal. He makes some of the best sensitised albumenised paper I have ever used. Agents for the plates manufactured by Sholz, of Grolitz, which are first-rate and very rapid. Nothing much to photograph in Dresden itself, but the Neumarkt on market-day is picturesque. Make the excursion to Saxon Switzerland and to Meissen (picturesque old castle); also river trip to Teltitz, over the Austrian frontier. Skating on the lake in the Gross Garten in winter might make good instantaneous studies. Easy to get camera carried—*diestmann* for about fourpence an hour.—**C. S. COBB.**

4194. **Hydroquinone, Keeping Powers.**—No, there is no need to keep it in the dark. It will keep for almost any length of time. I have some now a year old, which is as good as when bought.—**W. A. J. CROKE.**

4199. **Defects in Prints.**—These blisters are caused by using your toning solution too hot. It should be kept at an even temperature, about blood heat.—**W. A. J. CROKE.**

4199. **Defects in Prints.**—When the prints are washed, take the actual wet off with blotting paper, and then rub them gently (over a sheet of paper) with the handle of a table knife, or some similar flat ivory article. I have found this most effectual, and have noticed that the blue look always goes away when dry. "Blisters" should take care to keep his fixing and washing waters at as much the temperature of his toning bath as practicable, as this will probably help to avoid the blisters.—**THE TURTLE.**

4200. **Pizzighelli Platina Paper.**—I am sure that the paper issued now is inferior to that which one got when it first came out, ample proof of which is afforded from prints in my possession. I have found, however, that printing it dry and breathing on it afterwards gives better results than following the printed instructions. Of course, care must be taken not to print so deeply as when the other method is used.—**THE TURTLE.**

4201. **Photo-Lithography.**—Can obtain particulars from Petyke, photo-lithographer and colotype printer, of 174, Ramsey Road, Leytonstone Road, E.—**COLLOTYPE.**

4202. **Cheap Reproduction.**—The cheapest reproduction is by colotype printing.—**PRINTER.**

4202. **Cheap Reproduction.**—The only way I can advise would be to send your order to Waterlow, and get them to reproduce them, as they do the penny photographs one gets from the automatic machines.—**W. A. J. CROKE.**

### EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us before **TUESDAY MORNING'S** post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED. AM. PHOT.**

**BELLOWS.**—Try it. If you can mount the lens so as to be nearer the screen you will get what you want.

**JAMES LYON.**—See "Our Views." Could you send us a better print of the *Surefoot* photograph?

**W. F. WALKER.**—Shall utilise as a paragraph. Many thanks.

**F. KELLY.**—(1) The want of density is due in chief to faulty exposure. The plates do not allow of much latitude in exposure, and as a consequence they become exceedingly difficult to develop. We should advise you to try another make of plates. (2) The following is our order: 6, 2, 5, 4, 8, 3, 7, 1. (3) The pinholes are probably due to possibly want of care in using solution, an action set up by the ammonia, or an inherent fault in the coating of the plate. (4) We prefer the second paper that you name; either will give you detail.

**W. HEATH.**—We do not make the condition as binding as last year, but the work must be done, as the title denotes, during "Holidays with the Camera." Hope you will be as successful as you desire.

**G. L. S.**—Yes, certainly. The "progressive medals" will, as you say, give many a new comer a chance.

**JAS. F. STEPHENSON.**—We should like to see the negative, and could then better advise you.

**ROYAL NAVY (China Station).**—(1) If you have a sharp and plucky negative. (2) We can distinctly recommend B. (3) A is a very useful camera, and as now made would be found serviceable. B: There are difficulties in using this camera, which are against its use when away from home. C: These cameras are well designed, but would stand the wear and tear they would receive at your hands. For some time we have not seen any of the firm's goods. Possibly they have improved the manufacture of the apparatus you refer to. D: We do not know. Several better have been brought out and noticed in **AMATEUR PHOTOGRAPHER**. We will write you in a mail or two. (4) Not A, but B, looks very full of promise. Shall be delighted to see your prints and criticise them; you shall have our "straightforward and unbiased opinion." It is satisfactory to know that the **AMATEUR PHOTOGRAPHER** is of such service to you, so many miles away from home.

**T. H. O. M.**—A, B, and C are all useful cameras; we should advise square. You have selected three excellent lenses, A and B are about the two best in the market, and C is a thoroughly reliable instrument.

**A. W. CHANT.**—You will find No. 2 the best for studio work; No. 3 is an admirable lens, and although we have not used No. 1 it will, we know, give excellent results. They can, of course, be fitted to any camera.

**TRANSPARENT.**—From your description we think the plates were Marion's. Glad to hear that you got "a nice brown colour." The other plates should give you good results. Do you use the maker's formula? If not, do so, and we think you will obtain good colour. To secure monochrome see Wall's "Dictionary of Photography," under the heading "Transparencies." Let us know how you get on, especially with the later plates you have been using.

**S. E. K.**—At present we have no intention of altering the style or general contents of the **AMATEUR PHOTOGRAPHER**. Excellent illustrations are published in the *Photographic Reporter*, which is established essentially as an illustrated monthly magazine. Whilst the **AMATEUR PHOTOGRAPHER** does not lay claim to that distinction, yet there is hardly a number that does not contain illustrated articles upon photographic apparatus or manipulation.

**MRS. JESSOP.**—Thanks for your offer of help; we will send to you later on.

**W. C. HEMMONS.**—The two classes in "Stereoscopic Slide Competition" refer to size only.

**A. LAWSON.**—We do not think there is much to complain of. The fault is probably yours, and not due to the lens. You evidently are quite new to working with a hand-camera, and as the pictures are all badly put upon the plates, and you have not judged the lighting correctly in one single picture, so it is probable that the want of definition is yours, and not due to any fault of the lens. If you are not able to secure good work after a fair trial, go to the makers; they will instruct you, and if the apparatus is to blame, will, we are sure, put it right. We can pass no opinion upon the lens from the inspection of the untuned prints you send us.

**G. W. CASTLE.**—The water perhaps was warm. You might, without much difficulty, have floated the film back on to the glass. We cannot read the whole of your post-card, so you must forgive us if we have not fully answered your questions.

**CHRISTER.**—Possibly the paper is stale, your hypo bath too strong, and, we should say, dirty, or, perhaps, stained with pyro. Make another print on fresh paper, wash thoroughly before toning; see that your bath is carefully mixed, and immerse the print in fixing solution of about 2 ozs. to the pint. Add a few drops of liq. ammonia, sufficient to give it a faint smell of ammonia.

**T. H. PAGE.**—The camera you name was noticed on page 49, July 18th, AM. PHOT. It is certainly worth the money.

**A. G. MINSHALL.**—(1) You will find A the best of those named, and a really handy and serviceable apparatus. The other camera you mention is a most admirable instrument, and if you will go to



the money, you will, we are sure, be pleased with it, and will get excellent work from it. (2) Very pleased to see your work and criticise it. (3) Blisters probably; but it is most difficult to give any reason for their appearance.

GILBERT N. TRAVERS.—The following is Martin's formula for silvering mirrors:—

A.			
Nitrate of silver	...	...	175 gr.
Dist. water	...	...	10 oz.
B.			
Nitrate of ammonia	...	...	262 gr.
Dist. water	...	...	10 oz.
C.			
Pure caustic potash	...	...	1 oz. (avoir)
Dist. water	...	...	10 oz.
D.			
Pure sugar candy	...	...	½ oz. (avoir)
Dist. water	...	...	5 oz.
Dissolve, and add			
Tartaric acid	...	...	50 gr.
Boll in a flask for ten minutes, and when cool add			
Alcohol	...	...	1 oz.
Dist. water, q.s. to make up to 10 oz.			

For use, take equal parts A and B. Mix together also equal parts of C and D, in another measure. Then mix both these mixtures together in the silvering vessel, and suspend the mirror face downwards in the solution.

CYMO.—We cannot help you; should advise you to write to such a paper as the *English Mechanic*.

E. N. PRICE (Italy).—(1) About the same sensitiveness as the Special series. (2) We can recommend shutter A, both for time and instantaneous exposures. Very pleased at any time to hear from you. F. G.—The two prints sent leave nothing to be desired, except that in the view of "Market Place with the Church." We think you should not have vignettied the picture. You have done excellent work with the tools at your command.

ARTHUR P. BERRY.—Your best picture is No. 3. The next No. 2. These are both very carefully selected, and the exposure in each case correct. The technique leaves nothing to be desired. We should have preferred to have seen them printed upon matt-surface paper. Nos. 1 and 4 have no merit as pictures. In the latter the fence crossing the foreground breaks the picture very much.

A. C. D.—We do not know the lens, but are sure that the firm you name would not sell you a lens that would not "do good work."

JAS. YOUNG.—See "Our Views" last week.

P. CASSIN.—Inserted as a query.

CYRIL S. COBB.—Thank you; we will look it up.

DRYLAU.—The No. 1 is a capital lantern. You will be very pleased; we would rather have it than No. 2. Do not think No. 3 make anything so cheap.

H. HOPE.—Will send on what you require by letter in a day or two.

THOS. DRAPER.—Duly received. All prints will be acknowledged next week.

A. T. NEWINGTON.—The review of the prints only commenced with the July competition, which are reviewed in the August number of the *Photographic Reporter*. Afraid we cannot comment upon your print, but will, if you like, look it up and send you a line. Hope you will enter No. 18: "Inland Scenery, Landscape."

HYDROQUINONE.—Soak the plate for ten minutes in a solution of uranium nitrate, 50 gr.; distilled water, 1 oz.; drain, and soak in a solution of same strength of ferricyanide of potash till dense enough; wash and dry.

LENSGRAPH.—Because you have not carefully followed the instructions sent with the paper. The negative should yield a good Pizzighelli print.

DIDO.—1. Your prints are admirable. Of the two hot baths we should prefer the darker one; but it is really a matter of opinion. 2. Your results with hot bath should satisfy you. 3. The print would be better if a little warmer—more of a sepia tint. 4. Yes; we should say so. Hope you will enter our competitions.

ALWAYS MOVING.—We have never had an opportunity of seeing any of the firm's cameras, or, to our knowledge, work done with them. They are cheap, but, unless well made, they would be dear at any price.

J. A. S.—1. There is no need to use a yellow screen. The plates are about the same as other plates. Any developer may be used, but that recommended by the maker is sure to give the best results. The rapidity of the plate should be regulated by the class of work you intend to take up. Always use a clean hypo bath; it is cheap enough. 2. The second lamp you name is a handy one.

T. J. B.—As close as possible without actually touching. See *AMATEUR PHOTOGRAPHER*, August 23rd, 1890, p. 154.

G. S. BIGLAND.—We cannot undertake to act as a mediator between yourself and the firm named. They are a first-class firm, and will, we are sure, give your letters the attention they require and deserve.

LENS, grand 7 x 5 Rectilinear, loose hood, working to f/8, new, 25s.; also 5 x 4 Portrait Lens, with Waterhouse diaphragm, 23s. Solid Leather Camera Case, good, 14s. 6d.; Waterproof Stiff Canvas Bath, hand-made, 8s. 6d. Approval.—1, Hermitage Mews, Stamford Hill, N.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the *AMATEUR PHOTOGRAPHER* will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the *AMATEUR PHOTOGRAPHER*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

## DEPOSITS.

**Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.**

**Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.**

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the *Trade Scale*, which may be obtained on application to *Perry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.*

"*Amateur Photographer*" etc.—For sale, 80 *AMATEUR PHOTOGRAPHERS*, several "Annuals."—Sandringham, Hammetton Road, Bromley, Kent.

"B. O. P." etc.—"B. O. P." vol. ix., 8 numbers of vil., plates, excellent condition; "Illustrated London News" 1882, splendidly bound; 7s. 6d.—Knight, High Street, Godalming.

**Bicycle.**—Safety bicycle, Ivel pattern, ball bearings all parts, including pedals, hollow frame, adjustable seat and handles, excellent brake, mud and chain guards, plated and enamelled, all in splendid condition; also lamp and all other accessories; price only £5 10s.; can be seen any time.—Matthews, 34, Church Road, Brixton, S.W.

**Cameras, etc.**—Moore's Acme camera, 7½ by 5, all movements, three double slides, changing back, long extension, turntable with stand, and solid leather case, almost new; cost last June nearly £12; price £9; owner giving up photography; approval on deposit.—L. Elwes, Barracks, Lichfield.

5 by 4 Instantograph camera, a new lens, tripod, two slides, lamp, dishes, printing frames; offers, or would exchange for half-plate camera and slides; no lens.—Cayley, 27, St. Peter's Square, Hammersmith.

Whole-plate camera, brass-bound, three double backs; £6 6s.—S., 5, Park Road, Crouch End, N.

Cyc list's camera and six slides, takes plates 3½ by 2½, 4s.; light tripod, 6s. 6d.—T. Hall, Pinfold Lane, Lancaster.

Watson's quarter mahogany camera, three double slides, leather case, cost £5 5s., fitted Ross' lens, cost £4 4s.; price £5 the lot. — F. G. Potter, Norwich.

**Cameras, Lenses, etc.**—Tourist's 5 by 4 camera, three slides, Stanley R.R. lens, case, stand, printing frames, and dishes, little used; £5.—Price, Clovelly, Crown Hill, Harlesden, N.W.

Lancaster's half-plate Instantograph, Optimus R.R., and wide-angle lenses, leather case, all accessories, good as new; lot cost £9; best offer for cash.—A. Stubbs, South Street, Worthing.

**Coronet, etc.**—Coronet in B flat, good maker, cost £7, also euphonium in C, with slide to put into B flat, cost £7; will exchange both or either for photographic set.—George, 1, Albert Terrace, Cloudeley Road, London, N.

**Hand-Cameras.**—Griffiths' Guinea camera; exchange anything useful, photographic.—J. O. Grant, 63, Finsbury Pavement, E.C.

Diamond hand-camera, excellent condition, takes one dozen; 25s.—Knight, High Street, Godalming.

**Hand Cameras, etc.**—Excellent hand-camera for sale, cost over £10, holds 18 quarter-plates, only one movement to change, fitted with Taylor's No. 2 fixed-focus detective lens, f/5, and patent shutter; accept £7 the lot; equal to new in every respect; nothing in it to get out of order.—Professor De Frere, Cambridge Street, Tunbridge Wells.

Kodak, No. 1, good as new, with part of a spool of stripping film and two others, one stripping, the

other transparent; price £3.—Lieut.-Col. Ramsdne, Rogerthorpe, Pontefract.

Hand-camera, Watson's, six double backs, new last March, not used more than a dozen times, cost £11 9s. 6d. nett; price £9.—Rev. G. R. Hermon, Doublebois, Liskeard, Cornwall.

Stirn's detective, as new, with sling case and sundries; 16s.—A. D. Clarke, Pallion, Rugby.

Kodak, carrying case, instructions, etc., perfect order; bargain, £2, or good exchange.—Rev. Atkins, Normandy, Guildford.

**Lenses.**—Optimus lenses, perfectly new, 7 by 5 portable symmetrical, 41s.; 5 by 4 rapid rectilinear, 25s. 6d.—Averill, 238, Lozell's Road, Birmingham.

Quarter-plate rapid rectilinear and wide-angle (by Wrench and Son), splendid instrument, and almost new, price 23s. 6d. each; also half-plate rectilinear, 27s. 6d.; Vevers' quarter ditto, 16s.—T. Hall, Pinfold Lane, Lancaster.

Ross' 5 by 4 rapid symmetrical lens; £3.—S., 5, Park Road, Crouch End, N.

**Lenses, etc.**—12 by 11 Ross' R.S. lens, 16 in. focus, new, 8 guineas; Beck's Peepers 10 by 8 camera, 3 double backs, extra strong legs for turntable, two solid leather cases, cost over £20, 14 guineas; Key hand-camera, six double plate holders, brass bound, and fitted with attachment for tripod, 4 guineas; Shew's hand-camera, Eclipse, quarter-plate, six double backs, focussing screen, nearly new, £5; mahogany studio stand, cost 70s., 45s.—Apply, C., care of Housekeeper, 93, Bishopsgate Street Within, London, E.C.

10 by 8 Lancaster's lens, with instantaneous shutter, 35s.; whole-plate wide-angle ditto, 17s. 6d.—Kirby, Abington Street, Northampton

5 by 4 Beck's R.R., 5 by 4 Optimus W.A., quarter camera and three slides, stand, dishes, and frames; 90s.; divide, or exchange half-plate.—R. T. Walker, Balance Street, Uttoxeter.

Lancaster's quarter-plate lens and double dark-slide; cost 12s. 6d.; bargain, 10s.; open to offer.—W. Sears, 69, Long Street, Birmingham.

**Negatives.**—Negatives of Stratford-on-Avon, Warwick, Kenilworth, Canterbury, Lynton, etc., to be sold cheap.—Evans, Minehead, Somerset.

**Sets.**—Complete quarter-plate set, consisting of mahogany extending camera and three double dark-slides, in leather case, Ross' 7½ by 4½ rapid symmetrical lens, printing chest, tripod, detective camera, and other accessories; cost £10 10s.; will accept £5 10s.—H. Baker, 2, Acce Lane, Brixton, S.W.

For sale, or exchange for Kershaw shutter, three metal backs (fit Lancaster's half-plate Instantograph), and two-fold tripod with metal top.—61, King's Road, Southsea.

Through going abroad I must sell my photographic set, consisting of Lancaster's Instantograph half-plate camera, with reversing back and swing-back, Instantograph lens and shutter, Iris diaphragms, slide, carrier, and stand, nearly new, and warranted complete, lamp, printing frames, five quarter-plate and two half-plate, draining rack, camel-hair brush, squeegee, glass measure, developing trays, glass scales and weights, focussing cloth, magnesium flash-lamp, toning tray, mounts, chemicals, etc.; price £4 nett.—Rose, 44, Victoria Dwellings, Clerkenwell Road, London, E.C.

Quarter-plate 1889 Instantograph set (except stand, which is E.P. pattern), two extra double backs, leather case, with lock and key; price 60s., or offers.—T. G. Harrison, Rossendale Lodge, Streatham Hill.

**Shutters.**—Newman's patent shutter for whole-plate lens, new; cost 32s.; will sell for £1.—No. 78, *AMATEUR PHOTOGRAPHER* office, 1, Creed Lane, London, E.C.

Shew's Eclipse shutter, hood 2 ins. diameter, 6s.; also drop shutter, 2s.; bargains.—Steggall, 3, Queen Square, Bloomsbury.

**Tricycle.**—Singer Crimper tricycle, strong, fast, lamp, tool bag, luggage carrier and valve, worth £12; wanted, good half-plate set to value.—Letters, W. M., 67, Blwood Street, Highbury.

## WANTED.

**Camera, etc.**—Half-plate, or good whole-plate camera and tripod, also cabinet burnisher.—Particulars to Hall, 5, Gladstone Terrace, South Shields.

**Hand-Camera.**—Facie, fitted rectilinear lens, cheap; approval.—J. Stevens, 209, High Street, Sheerness.

**Hand-Camera, etc.**—Shew's quarter-plate Eclipse hand-camera, Standard pattern, sound condition, with finder, four rotating diaphragms, and dark-slides; approval; deposit.—Full particulars and price to Lawret, Woodlands, Heaton, Bolton.

**Lenses.**—Good wide-angle rectilinear lens, half-plate, cash; approval; deposit.—Chas. Cooke, Clare, Suffolk.

Half-plate rectilinear lens, also quarter-plate wide-angle ditto.—Owen, 7, Rocky Lane, Birmingham.

Whole-plate wide-angle rectilinear, by good maker, in exchange for whole-plate rapid rectilinear.—Wayne, Ildridgegap, Derby.

**Lens, etc.**—Quarter wide-angle rectilinear, good make, also pair rectilinear stereo lenses, or complete portable stereo outfit, cheap.—Westrop, Abbots Court Lodge, Chester.



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Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.....	Twelve Months, 10s. 10d.
POSTAL UNION .....	" " 6s. 6d.....	" " 13s. 0d.
INDIA, CHINA, ETC. ....	" " 7s. 9d.....	" " 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism. Books or Apparatus for Notice, or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

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Offices: 1, Gress Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 314.]

FRIDAY, OCTOBER 10, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—*Shakespeare.*

THE prints contributed to the AMATEUR PHOTOGRAPHER Monthly Competition No. 17, "Enlargements," are not of such high merit or as numerous as those contributed to other competitions, due chiefly to the fact that only a fortnight elapsed from the date of the last competition to the date fixed for the Enlargements to be sent in. The first prize has been awarded to—

*Silver Medal*—JAMES SHAW (Manchester), for an enlargement, 23 by 17, on Morgan and Kidd's bromide paper, from a 7 by 5 negative of "Fountains Abbey," which makes a grand picture. The bromide enlargement was made in daylight through an RR. lens, stop  $f/13$ , with an exposure of 45 secs., and developed with Jumeaux's developer. The original negative was taken on a Wratten and Wainwright plate with an Optimus lens working at  $f/24$ , with an exposure of 5 secs.

The print which has received the second prize is from an enlarged negative.

*Bronze Medal*—GEORGE SHERRIFF (Larbert), and is termed "On the Turin Valley Road," a very charming landscape, carefully selected. The original negative was a half-plate, and from that a transparency was made, and an enlarged negative was produced by a Ross R.S. of 9 inch focus on an Ilford white-label plate,  $f/40$ , and an exposure of 40 secs. The print is on Blanchard's platinum black toned to a warm tint, which takes away all harshness.

The following competitors' work is especially worthy of notice:—Mr. John W. Eadie (Airdrie), a print, "A Son of the Sea," enlarged from a 5 by 4 negative, on Eastman's bromide paper 11 by 9, exposed for four minutes four feet from a gas flame; the photograph is admirable. Mr. Alex. Mathison (Edinburgh), "Rags and Bones, Come Awa'"; in this case we certainly think that a better enlargement might have been secured. The original print before us is far away before the bromide paper enlargement. An exposure was given of fifteen minutes in dull light, with a Triplet lens, and the paper was developed with ferrous-oxalate. Mr. Fred A. Shierwater (Liverpool) contributes a print from an enlarged negative, "Ye Old Hutte," which has merit; the water in the foreground is not sufficiently broken up, but much care has been taken in the preparation of the enlarged negative, from a quarter-plate, and the Obernetter print taken from it. Dr. Ringrose Atkins (Waterford) sends a 15 by 12 enlargement on bromide paper, Ilford, from a quarter-plate negative, of "The Great

Mosque of Sidi, Okba Kairwan, Tunisia;" the details of the original negative are very faithfully given. Major D. Lysaght's (Queenstown) picture "In Tow" is an enlargement from a good quarter-plate negative, taken with a Swift doublet lens. The enlargement was made by the same lens, a 6 in. condenser being used.

The above photographs will be reproduced in the next number of the *Photographic Reporter*, and all the prints sent in criticised.

\* \* \* \*

WE had intended devoting some space to the apparatus exhibited at the Photographic Society's Exhibition in Pall Mall, but really, with the exception of specimens of work by the Primuline process and called "Diazotype printing," there is nothing really new. Mr. Samuels shows rather a novel form of camera for packing up into a small space. Mr. Gotz has two or three cameras, one in particular which has all its metal parts made in aluminium, is very light and compact. Loman's "Reflex" cameras are exhibited by Messrs. Mawson and Swan. A useful camera case which is very light, made of Willesden paper, is shown, and a new leather case of ingenious construction for Shew's "Eclipse" folding camera. This firm are now making folding cameras up to whole-plate size; they are very compact, light, and for tourists will be most valuable, especially when fitted with a roll-holder; they can, of course, be held in the hand or placed upon a tripod. Messrs. Marion and Co. show specimens of work done with, and samples of, a rollable film of foreign manufacture, which they are introducing into this country. Messrs. Griffin and Sons show a new hand-camera, and Messrs. Sands and Hunter have made an admirable attachment to their cameras, by which, when closing up the camera, the front falls of its own weight; this attachment is useful in the front of the camera, as it permits a slight swing to be given. Messrs. George Houghton and Sons show the "Cylindrograph," by which photographs can be taken on films 23½ ins. long and 7 ins. deep; specimen prints are exhibited. The same firm send a "Rising Ladder Camera Stand;" the makers say it will be found most valuable, especially by professional photographers, in overcoming foreground obstacles in landscape photography. In these few words we have really exhausted the exhibits which have any claim to be called novel. What the reason of such paucity may be we are at a loss to know, but we fear many of the country visitors will be disappointed at this section of the



Pall Mall show. At the moment of going to press, we have heard from the Assistant-Secretary of the Photographic Society of Great Britain, that the judges have awarded a medal to Messrs. Green, Cross, and Bevan for their exhibits of Diazotype printing, and another medal to Mr. Andrew Pringle for his "Photo Enlargements."

\* \* \* \*

MANY of our readers will be glad to hear that arrangements have been made with the Rev. T. Perkins, M.A., to contribute a short series of articles on "Photographic Work for the Winter Months." We also are pleased to announce that the articles by Major J. Fortuné Nott will now be published in each alternate number. We have several other contributions being arranged, which will be announced in due course. Efforts are being made to secure early instantaneous photographs to illustrate the articles now appearing from the pen of Mr. W. H. Harrison, F.G.S. If any of our readers should possess such photographs, we should be glad of the loan of them for reproduction. Mr. Harrison would, we are sure, be glad of work done before or in the "sixties."

\* \* \* \*

WE are pleased to announce that particulars of the third photographic exhibition to be held at Tunbridge Wells, under the auspices of the photographic society in the town, will shortly be issued.

\* \* \* \*

SOME of our readers will be interested to know that it is proposed to form a photographic society at Barnstaple, and that Mr. A. C. King, of 18, Hills View, will be glad to hear from any one in that town or district who may be willing to support the movement.

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THE first meeting of the Great Yarmouth and Eastern Counties Photographic Society was to be held last Wednesday. Mr. H. Harvey-George, The Tower, Gorleston, Great Yarmouth, will gladly furnish rules, etc., to those wishing to join.

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WE should like to call the attention of our readers to the Bury Photographic and Arts Club. This club was formed in 1882, and has now some seventy members, all amateurs. Of this number more than sixty are working members. We have thought it possible that there are amongst our Lancashire friends some who may not know the club, and who would be glad to become members. The Hon. Secretary, Mr. Roger Wood, 190, Bolton Street, Bury, Lancs., will, we are sure, be pleased to hear from them.

\* \* \* \*

SPACE is, we understand, being well taken up for the exhibition of photographs, being promoted by the Edinburgh Photographic Society. We hear from Mr. T. Barclay, the very energetic Secretary, that the Right Hon. the Lord Provost has consented to perform the opening ceremony on the 14th of November. There is every promise of a most successful exhibition in "Auld Reekie."

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"ONE-MAN" exhibitions have been much in vogue for some time past, and there are no signs as yet of their passing out of fashion, as the ladies are beginning to follow the example. An exhibition of collected works by one artist requires pre-eminently two qualities to be successful and interesting, viz., excellence and variety. In the collection of water-colour drawings of flowers by Mdlle. Marguerite Roosenboom, at present on view at the Fine Art Society's Gallery in New Bond Street, the excellence of the work is undoubted, but, unfortunately, variety is absent. Azaleas,

peonies and roses, sunflowers, rhododendrons and primulas are painted with great tenderness of colour and much power of execution, from which, as ought to be the case in flower painting, all hardness is eliminated. The arrangement of the flowers is simple and natural; cut in a vase, or lying in sprays on a slab generally; but so frequently it is the same vase, the same slab, and the same grey background, and it is this monotony of treatment which lessens the pleasure otherwise derived from the clever and skilful handling of these flower pictures.

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MR. JOHN S. GLADSTONE, Secretary of the Photographic Society of India, write us: "I am returning to Calcutta per *Shannon*. The information should, therefore, be discontinued that I can supply particulars to exhibition."

\* \* \* \*

IN acknowledging a copy of "Prize Pictures, No. 2," Mr. Paul Lange's "Norway," the talented authoress of "Norway in June," Mrs. Olivia M. Stone, says:—"I think they are lovely, and I appreciate them still more from knowing the scenery so well."

\* \* \* \*

MR. T. C. HEPWORTH, F.C.S., will commence his winter series of lectures upon "Photography" on Saturday next, at 6 p.m., in the rooms of the Birkbeck Institute. These lectures are always looked forward to by a large number of workers, and at the same time they form a course of excellent instruction for those who wish to advance in photography.

\* \* \* \*

OUR Liverpool correspondent calls attention to a series of evening lectures on "Photographic Chemistry," to be delivered by Dr. Charles A. Kohn, B.Sc., to be delivered weekly in the chemical laboratories of the Liverpool University College. The fee for the course—which practically covers the principles of the chemistry of photography—will be six shillings. The first lecture is free, and tickets may be had at the College.

\* \* \* \*

IN another column we publish an article just to hand on the "Present State of the Focus Question," by Mr. H. P. Robinson. It is, of course, quite clear to Mr. Robinson that everyone is not prepared to accept some of the medalled pictures at Pall Mall as examples of photography to emulate, and the article, "Hands Off; a Criticism," may still further convince him that our readers do not all think alike.

\* \* \* \*

MR. FRED. BETLEY, of 11, Swinly Road, Wigan, advises us that a photographic society has been formed for Wigan and district. It is hoped that the Earl of Crawford will accept the presidency. Mr. Betley will be glad to hear from intending members.

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THE Bristol and West of England Amateur Photographic Association is doing good work in the "west cuntry," but wisely does not confine itself within those picturesque limits. It was under the auspices of this Association that on Wednesday and Friday of this week, Professor Muirbridge delivered two lectures, in the large Colston Hall, on "Animal Locomotion in its Relation to Design and Art." The lectures were illustrated by the lantern and the Zoopraxiscope, and were highly appreciated.



SWINDEN AND EARP'S CAMERA.—Arrangements have been made by which the London Stereoscopic Company, Regent Street, will become West-end agents. A slight improvement has been made by the introduction of a spring which brings the last plate home for exposure.



## Negatives and Positives.

WE live in an age of big things. There is in the air a gigantic project; nothing less than the cataloguing of standard photographs. The idea of a "catalogue of all the standard photographs at present on sale in the British Empire and American Republic" is rather a large idea. Without being over-bold, we may venture upon the prophecy that while Mount Snowdon lasts there will still be work to do.

\* \* \* \*

ONE of the difficulties will be (to borrow Mr. Micawber's term) "where to draw the line." Twenty thousand negatives is not an out-of-the-way number for many a practical photographer to possess. Our friend, the "unemployed senior wrangler," has made a rough calculation, estimating the minimum number of standard negatives in England to be 81,397,464,893,724 approximately. Our office boy says that number does not include a photograph of a well-known "house-of-call" kept by his aunt's grandmother's nephew, which said "house-of-call" rejoices in the sign of the "Royal Standard." To omit this standard photograph clearly is not to be thought of.

\* \* \* \*

WHATEVER Goethe has said is worth listening to. Here is a bit of simple advice for those who take to themselves the office of "improving nature" beyond our recognition. "There is no trifling with nature; it is always true, grave, and severe; it is always in the right, and the faults and errors fall to our share. It defies incompetency, but reveals its secrets to the competent, the truthful, and the pure;" to which we only would venture to add, "Read, mark, digest." *Verb. sat. sap.*

\* \* \* \*

IT is a curious thing that every man should think he is a born art-critic. There would be just as much sense in his thinking that he were a born navigator, surgeon, or watch-maker; and yet the ever-ready home-made art-critic would hesitate to navigate a ship, amputate a limb, or even make a watch without some little preliminary study. For the most part the home-made art-critic is a domestic animal usually occurring in only two known forms. He either belongs to the "I know what I like, and that's enough for me" section, or he pins his faith to the alternative dogma, "Any fool can see what is before his eyes."

\* \* \* \*

ONE is often reminded of the old saw, "It is never safe to prophecy until you know." The present exhibition in Pall Mall has exercised the guessing powers of more than one of our friends. *Some of them were wise, and others were other wise.*

\* \* \* \*

THE on-looker often sees most of the game. A very slight acquaintance with the past and present movements in so-called art photography will enable one to see that we are now reaching an extreme point in the latest diffusion movement. Some unsympathetic souls are saying, "when things get to the worst they mend," and declare that "confusion of ideas always leads to diffusion of work." Possibly. We once knew a man who made it a point to try and represent things in his pictures in the way *ordinary* people see them. He took a photograph of a hay-field, and so realistic was the result that the majority of his friends got an attack of hay-fever within twenty-four hours of seeing his picture. There was another art student who photographed an onion field, and his friends . . . but the recollection of this *tour de force* brings tears to our eyes ("Tears, idle tears"), and to our memory the lines—

"Plays such fantastic tricks . . .  
As make the angels weep."

(Measure for Measure.)

## Exhibitions.

### EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.—II.

IN further notice of the works in this Exhibition, it will be found impossible to continue the classification of subject pictures and landscape pure and simple. The line of demarcation is so slight in many instances, and in others the interest is so equally divided between the two component parts of the picture, that exact definition could not be made. And in addition to this, the works of many exhibitors are hung in groups, and although a certain individuality of technique and tone naturally characterises the works of each man, yet the subjects are frequently varied to a great degree, and a better lesson may be learned by studying the qualities and defects of each group, and noting the difficulties which have in some measure hindered the attainment of complete success. For the average standard of technical excellence is not only so high, but is "levelling up" to such a marked degree that distinction above his fellows is only now to be gained by the photographer who, to technical excellence already acquired, super-adds qualities of another nature.

And it scarcely requires a survey of the Exhibition to gain a knowledge of what the photographer of to-day is striving after; a mere reference to the catalogue would, to a great degree, show it. He is content no longer with views, the staring light of the noonday sun no longer satisfies him; he seeks the hour when "Evening wraps the lake in gloom," when "The last of the daylight" lingers in the sky, but throws the home-returning waggon into mysterious indistinctness, and he gives to his pictures these suggestive titles; in a word, he strives to add pictorial beauty and sentiment to photographic skill.

To do this with any measure of success, not only must he possess the inherent artistic instinct, but the acquired knowledge to guide it aright. It is for this reason that, in the present Exhibition, those who have contented themselves with the pictorial treatment of landscape are more successful than those who have attempted the pictorial composition of figures, or landscape and figures combined.

In the latter class of subjects the difficulties are increased; the arrangement is nearly always too evident, and faults of disproportion are very frequent, not only between adjacent figures, but also in the limbs of single figures. These difficulties and faults may yet be overcome, but on the whole the composite figure subjects must be classed among the curiosities and experiments of photography rather than among its achieved successes.

Very early in the catalogue we come on an illustration of what has just been advanced. In "A Sudden Shower" (2), by the Rev. F. C. Lambert, the stranded boat with sloping mast and effect of passing cloud combine to form a very satisfactory picture. In "Light at Eventide" (3) we have from the same hand a figure composition; a worthy couple in the evening of life seated by their cottage door, and although good in sentiment and intention, there is a sense of disproportion between the two figures, and the boots of the man make an awkward dent in the apron of the old woman. In "Waiting for the Boats" (150), with greater simplicity of subject, he has been more successful; the pose of the single figure is natural and unaffected; the coil of rope is perhaps a little heavy in its mass, and takes the eye away from the figure.

Mr. Alex. Keighley's composition of three young ladies in a woodland lane, turning round, with the inquisitiveness of their sex, to see "Who's Coming?" (5) is fresher and more spontaneous in movement than his single figure, "A Thorn in the Foot" (6), which has rather a vapid and artificial air.

A certain delicacy and charm pervade all the contributions of Mr. J. Gale, but all are not equally happy in choice and arrangement of subject. When, however, he combines the delicate treatment with happy choice of subject, as in "Through the Driftway to the Fold" (18), and "A Lesson in Basket-Making" (33), a very perfect result is obtained.

Mr. H. P. Robinson, whose pictures are marked as not for competition, presumably on account of his being one of the judges, does not, like Canning's knife grinder, say, "Story—God bless you, I have none to tell, sir!" He glories in the story-telling picture, usually giving it a touch of kindly humour; and if too many have followed in the same groove, he cannot be held altogether responsible for that, but must accept it as the sincerest



form of flattery. He has enthusiasm, with much experience and knowledge, as guides, and yet one may see from his work the extreme difficulty of getting all the parts of a composite figure subject in harmony in photography. Of the two subjects of shrimper life—"A Strange Fish" (26) and "Against the Wind, a Race with Grandad" (109)—we much prefer the latter. In it the figure of the old shrimper is delightful, and the child whose hand he holds has vivacity of expression and movement, but in a race against the wind, would not the light-hearted, light-heeled little lass be likely to be in advance of the burdened old man; and again, in the background, do we find it give sympathetic aid to carrying out the idea of a boisterous, windy day, with its forms of scurrying cloud?

On the opposite wall is a group of six pictures (358, 363), also by Mr. Robinson, of which many will prefer "Shades of Evening" (362), with its telling sky against the deep and sombre bank of trees and flock of simple sheep in the foreground; but here are no unmanageable human beings to deal with.

"Study in Gray" (80), and "Stones of Venice" (81), by Alfred Stieglitz, are very good, both in tone and arrangement; the figure descending the flight of steps in the latter being in good keeping with the surroundings and well placed.

Very exquisite work is to be found in Mr. William Bedford's "Down Dale" (92), and "Stream and Woodland" (93), but they are unsatisfactory as pictures; beautiful detail spread over the whole surface only makes the want of concentration and simplicity of effect more strongly felt, and makes us feel that whatever diversity of opinion may exist as to the merits of the newer school of photography, it at least must be credited with tackling an extended scope and variety of subject from that previously indulged in.

"On the Thames at Hampton—Evening" (101) merits notice from its agreeable line, and the harmony of effect between sky and landscape.

From Mr. Paul Lange are two pictures of the fairy flagree work of Nature when tree and shrub are encrusted with hoar frost (132-133), while the fairy flagree work of man in Moorish architecture is beautifully rendered by Mr. T. M. Browning in his "Doorway in the Alcazar, Seville" (148), which is perhaps the best of his four pictures hung here.

In two pictures entitled "Corbiere Rocks at Half-tide" (143 and 144), Mr. A. R. Dresser has been eminently successful in giving in the first the crested wave rolling in, and in the second the breaking of rough sea on rocks into foam and cloud of spray. Equal praise cannot be given to his "Cattle—Evening" (145), which is unsatisfactory in the placing of the cattle, and the want of harmony between sky and tone of water in the pool.

Though the figure in Mr. John C. Douglas' "Schnoucht" (160) occupies but small space in the picture, it not only gives the title but the motive; the wistful longing of the German peasant maid who leans against the farmyard paling, and whose mind is filled with thoughts and dreams of the future, is happily given. The background is picturesque, though, to be in consonance with the sentiment of the picture, the details should not have been so much insisted on, and the bit of tree, awkwardly cut off and intruding into the picture on the left, would have been better absent altogether.

Mr. S. Bourne contributes a group of eleven pictures (190 to 200), and all possess not only refinement and daintiness of execution, but a certain striving after an infusion of poetic sentiment; they are tender, but fail in being impressive. In "Cooling Ripples" (199) the single cow in silhouette against the water of the lake rather hurts than helps the picture.

To "The Last of the Daylight" (252), by Mr. Frank M. Sutcliffe, nothing but praise can be given. It is admirable alike in its photographic and artistic qualities, and the laden waggon and workers of the field who wend their way homewards after the toil and burden of the day have that touch of mystery and undefinedness which gives such charm to the evening hour. In some of his other works, Mr. Sutcliffe has not been so successful, and exception must be taken to the hard, cut-out look of the tree against the sky in "October" (253), and to a similar defect in "After Sunset" (254).

The good qualities in Mr. R. S. Redfield's "Hesitation" do not compensate for the disagreeable effect produced by the exaggerated disproportion in the legs of the boy, the further limb being about half the size of the other.

Mounted in one frame and modestly entitled "Views" (310) are six pictures by Mr. Karl Greger, which deserve close atten-

tion and high praise. They are genuine photographs; there is no mistaking them for sepia drawings or anything else; there is no importation of London winter fog to country scenes in summer time, but they have brilliancy and sparkle, and are good in composition and arrangement. All the six are certainly not of equal merit, but of especial excellence are the "views" of the Old Mill and the canal scene with the boat so happily introduced in exactly the right place.

Mr. A. Horsley Hinton gives us a picture of fishermen "Landing the Nets" (301), and in which the figures do not look too arranged but seem actually at work.

If we wish for an example of the foggy school to contrast with the other, we have not to go far, as in "No Tidings" (323) Mr. J. M. Nisbett supplies us with one—two girls on a low grassy cliff look sadly seaward, and it is undoubtedly one of the instances in which subordination of detail to the principal motive of the picture is advisable, but though the treatment of the picture is not without a certain simple pathos, it cannot be pronounced a success, as here again the feeling of light, and being in the open air, is entirely lost, and instead of atmosphere we only get haziness.

"Lodore Derwentwater" (341), by Mr. Walter R. Cassels, with its reedy foreground, is well chosen, and has good atmospheric effect.

While horses, cattle, and sheep especially are frequently used as adjuncts to give interest to pictures, there is but a very small proportion of what could be termed animal photography in the Exhibition. Miss Florence A. Harvey's "Highland Cattle" (11, 78), and her "Studies of Highland Sheep" (127 to 129) are worthy of notice, and we have two charming studies of kitten life by Mr. Gambier Bolton; "A World of Wonder in her Eyes" (347), and "Great Expectations" (389) are wonderfully happy in expression, and very effective from the absence of any intrusive or unnecessary forms in the background.

A certain evenness of quality runs through the six pictures of Mr. Ernest Spencer (383 to 388), but for good selection of subject "Lock Brook, Devon" (384), "Near Topsham, Devon" (386), and "A Pastoral Scene" (387) deserve special mention.

For some years past Holland has been a happy hunting-ground to those in search of the picturesque. Its people have to a great measure retained their distinctive national costume, and its windmills and canals, its bulky boats and sandy beach all lend themselves freely to pictorial treatment. To Scheveningen, or some such place on the coast, Miss Florence A. Harvey has gone for "Dutch Fisherfolk" (436), four pictures in one frame, which though disfigured by a tendency to blackness, are all interesting in subject, but more especially the waggon and horses bringing in the nets through the shallow breaking sea, which has the two excellent qualities of freshness and movement.

A pleasant little picture is Mr. A. Horsley Hinton's "The Path to the Shore" (444), and more effective is his "Where swaying reeds eternal murmur made" (577); and though, perhaps, Thames subjects begin to pall a little from their want of freshness, in "A Quiet Pool at Goring" (474) Mr. J. Bracebridge Hilditch has given us a pretty bit of riverside scenery, with its church and cluster of cottages.

It is refreshing, as a change, to come upon a figure picture which demands notice and praise, and both must be given to Mrs. W. P. Arnot's "Waiting," a single figure in fanciful gipsy dress. It has a certain nobility and grace in its dramatic pose; and as the background has wisely been kept simple, so as merely to set off the figure, there are no jarring or incongruous surroundings.

A few more notes on pictures and some remarks on portraiture and reproduction must be left to a third and concluding article.

## Letters to the Editor.

### PRINTING UNDER GREEN GLASS.

SIR,—On my return home after some weeks' absence, I found quite a bundle of the AMATEUR PHOTOGRAPHER awaiting me. I have read with interest the experiences of some of your subscribers in printing under green glass.

Some seem to be in favour of it, while others are against it. If not encroaching too much on your valuable space, might I just give, in a few words, my own experience of printing by this method?



I had never, until this season, heard of it, and, on reading of it, I at once procured some pieces of the glass, cut a little less than the size of my half-plate printing frames, and experimented with a few negatives, some ordinarily thin ones, and some of medium density, that is to say, some portrait negatives, which usually print, out of the sun, in from twenty to thirty minutes, and other negatives which require from three to six hours.

I printed the thin negatives under the green glass, *out* of the sun, the denser ones *in* the sun, and found, of course, as others have found, that the time which elapses in obtaining the prints is the great drawback to the process (perfectly unsuited to the professional man, I should fancy). Nearly a day passed ere I got good sound prints from the thin negatives, and over two days from the dense ones.

I used the ordinary albumenised paper first, printed pretty deep, washed, and toned with borax, the result being that I obtained very charming pictures, and quite equal to what I saw reported in your journal.

I next tried the matt-surface paper; obtained first-class prints, but they fell off considerably in course of toning and fixing. I did not use the formula given with the paper, so may have myself to blame. I intend yet, however, to do more matt-surface prints, and give them a fair trial. Meantime, I must certainly give my verdict in favour of printing under green glass, at all events for those who do photography for recreation.

I may mention that I place the green glass *outside* the frame, and fix with elastic bands, finding no inconvenience in so doing.

—Yours, etc.,

WALTER WM. RITCHIE.

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#### TONING BROMIDE PAPER.

SIR,—Can you or any of your correspondents give me a satisfactory formula for warm tones on bromide paper?

I have rung all sorts of changes on the uranium-ferricyanide formula, but cannot get satisfactory results.

This is a matter of importance to many of your readers now that warm tones are, happily, come to the front again, and the long winter nights close at hand when printing by artificial light will be often necessary.

By the way, I have used the transferotype formula as quoted in Mr. Morris' paper on "Enlarging," for *intensifying* and toning lantern-slides, with some success, taking care not to wash too long after toning, and to tone *after* fixing and thoroughly washing.—I am, etc.,

October 6th, 1890.

EDW. B. WAIN.

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#### PLATINUM PAPER.

SIR,—In your issue of the 26th September "H. E. G." asks for hints respecting Pizzighelli paper. It will doubtless interest other readers of your valuable paper as well as "H. E. G." to know that a very beautiful paper of this sort is supplied by Mr. E. B. Hardcastle, of East Street, Brighton. The process is simplicity itself, and the results are very fine. I never damp it before putting it in the printing frame, and prefer to print right out, only resorting to steam if it is impossible to complete the print in the frame.—I am, etc.,

M. McMULLIN.

October 6th, 1890.

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#### EIKONOGEN.

SIR,—I have recently tried Cramer's eikonogen developer, as given in the AMATEUR PHOTOGRAPHER of May 16th, 1890. The first trial was most satisfactory in every respect, but a couple of days after I had occasion to develop some more plates, and I found that the No. 1 solution containing sulphite sodium and eikonogen had become very dark in colour. I tried two plates, but in both cases they stained all over and I could get no image whatever, although the plates had had ample exposure. I then tried two more plates that had had similar exposure, and with the hydroquinone developer given in the AMATEUR PHOTOGRAPHER of July 18th, 1890, I got capital negatives.

What has gone wrong with the eikonogen developer? I understood that it would keep well, and could be used over and over again.—Yours truly,

G. MURRAY WILSON.

#### TONING GELATINO-CHLORIDE PAPER.

SIR,—With reference to the subject of toning aristotype or Obernetter papers, which has recently occupied space in your correspondence column, I think I may advance greater simplicity as a plea in favour of the following formula:—

Sulphocyanide of ammonia	..	..	2½ drms.
Chloride of gold	..	..	2½ grs.
Water	..	..	15 ozs.

Mix twelve hours before use.

This may, if occasionally filtered, be kept for a long time, fresh gold being from time to time added to the bath as its action becomes weaker.

Formerly I used large quantities of the papers in question, and my formula never failed me.—Yours, etc.,

HORSLEY HINTON.

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#### FERROUS OXALATE.

SIR,—I thank Mr. A. C. Townsend for noticing my letter, because he gives me the chance of speaking more clearly. He says that my success (if I may so call it) is because "perhaps my exposure has been exactly correct." The meaning of this is that, by chance or by good luck, I have been correct, and not only correct, but *exactly* correct. In these few words Mr. Townsend, at least indirectly, admits my whole contention, which is that amateurs make a great mistake in overlooking the claims of iron as a developer, and ought not to be too easily frightened by the notion of the limit it puts to exposure. "A. C. T." admits all this by admitting that I, by chance, have hit upon the exactly correct exposure.

I have a gross or so of very creditable negatives, taken under all manner of circumstances of time, of place, and of other accidents incident to an indefatigable amateur. These negatives are all developed by iron, and represent an endless variety of density and of subject. They have all been taken within the last nine months, and developed by myself, who hadn't any idea of the mysteries of photography ten months ago. I had no help whatever save what the AMATEUR PHOTOGRAPHER gave me; not even had I the help of an exposure meter. All my exposures have been made and regulated by common sense, a due regard to the results of experience, and a serious observation and consideration of the causes of failure. All this goes to prove that there must be considerable latitude for exposure; or, in other words, the "exactly correct" exposure permitted by the iron developer must cover an area much greater than the ordinary amateur is allowed to suppose.

No doubt the successful employment of *any* developer depends upon the practitioner's love for it and perseverance in its study. But what I maintain is that when, by experience and perseverance, a worker has once taken hold of the real working of this developer so as to be familiar with the various action of each constituent, and when, also, he has a practical notion of what is meant by under and over exposure—when, I say, he has acquired this familiarity (and who can work successfully with *any* developer unless he first familiarises himself with its power?)—I maintain that ferrous oxalate can hold its own against any other developer.

Its advantages, too, are by no means to be ignored. It is straightforward; only be exact and fair with regard to weight and measure, and it will never play you tricks. It is clean and quick. I developed on one occasion fifteen good negatives out of seventeen—one at a time, and all within an hour and a quarter. It *never* stains. I did not know what a stain was till I tried the loudly-lauded merits of eikonogen, hydroquinone, and that other horribly dirty thing, pyro. It requires no varnish, and very little washing, compared to the requirements of other developers. It is very good, if not the best developer for bromide papers, and will suit almost all kinds of plates and films. It is also the cheapest. From what I have seen of ordinary amateurs' work, I would almost challenge comparison. In fact, Mr. Editor, I presume to think it would not be a bad idea to offer a prize for the best show of, say, fifty negatives exposed and developed by amateurs of not more than a year's experience, and we should then be able to have a practical test of the all-round working power of the various developers now employed.

I beg to apologise for my long letter, and at the same time to assure Mr. Townsend that if I seem to have unduly emphasised remarks or admission, I have done so, not with the intention of distorting his meaning, but only that I might the more clearly express my own.—Yours truly,

F. M. G.



## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### CHAPTER II.

#### HISTORY OF INSTANTANEOUS PHOTOGRAPHY (CONTINUED)— RAPID EXPOSURES ON WET PLATES.

*Talbot's Calotype Process—too Slow for Instantaneous Work.*—The first process of Fox Talbot—"photogenic drawing"—which he published in 1839, was extremely slow, the pictures being "printed-out," so to speak, in the camera, and requiring an exposure of at least an hour. But the calotype process which Talbot patented in 1841 included a method of development by gallic acid, by which the average exposure was reduced to about half a minute. Of this calotype process Thornthwaite writes\* (1852) "The time required will vary from a few seconds to eight or ten minutes." Croucher says† (1851), "With a single achromatic lens, in the morning sunshine, from fifty to sixty seconds is, perhaps, requisite for a building, and from one to three minutes for a portrait; in the shade from two to three minutes are required for either. Pictures are taken in a much shorter time, in from ten to twenty seconds, by using a combination of lenses, or with a single lens under very favourable circumstances."

I have examined a large number of very fine calotypes, but I can find no indication, nor can I find any account, of any calotypes having been secured instantaneously.

*Talbot Photographs Instantaneously upon Wet Albumen Plates by the Aid of the Electric Spark.*—The albumen process discovered by Niepce de St. Victor in 1847 consisted in coating a glass plate with white of egg containing an iodide and a bromide; then by dipping such a plate into silver nitrate solution the iodide and bromide of silver were formed in and upon the albumen. The plate was next exposed in the camera, and subsequently developed with gallic acid.

Fox Talbot modified this process by using iodide of iron, and by developing with ferrous sulphate.

In the month of June, 1851, he succeeded in securing, in the laboratory of the Royal Institution in London, a photograph of a page of the *Times* newspaper fastened to the side of a revolving wheel. The following description is from the *Athenæum* for 28th June, 1851:—"A printed paper was fixed upon the surface of a wheel. A camera was carefully adjusted to give a correct image of this wheel. The room was then darkened, and a very sensitive plate was placed in the camera; the wheel was then turned by a handle until it acquired a great velocity—the greatest, in fact, which could be given to it. At this moment the camera was opened, and a powerful electric battery was discharged in front of the wheel, illuminating it with a sudden flash of brilliant light. The sensitive plate was then taken out of the camera, and the image developed. The plate was found to contain an image of the words printed on the paper, and it was remarkable that there was no indistinctness of outline in them, notwithstanding the rapid motion of the wheel."

Talbot's own account of the method by which he prepared his plate for this experiment will be found in the *Athenæum* for 6th December, 1851; and he patented it (though the patent was subsequently disclaimed) on 12th June, 1851. The "electric battery" employed was a series of Leyden jars, whose discharge yields a spark of intense brilliancy, with an estimated duration of about the twenty-four-thousandth part of a second.

At the time no one seems to have repeated Talbot's experiment; but quite lately, Professor C. V. Boys,\* Lord Rayleigh, and others have employed a similar electric discharge to secure pictures of drops of falling water, etc.

Talbot's success in this revolving wheel experiment was the more remarkable because it was achieved with an albumen plate. These plates give images of considerable beauty, but they usually require long exposures—as much as from five to twenty minutes being given by the men who used this process for landscape work between the year 1848 and 1852. Talbot, however, employed the albumen in a wet and soft condition; while the albumen plates prepared by later workers were usually dried before use.

*Instantaneous Work on Wet Collodion Plates.*—Scott-Archer's collodion process (1851) displaced both daguerreotype and calotype, and was almost universally practised until 1880, when it was in its turn displaced by gelatine. A glass plate coated with iodised collodion was dipped into a bath of silver nitrate, thus producing (by chemical action) silver iodide; while an excess of silver nitrate was also present. While still wet, the plate was exposed in the camera, and then developed with pyrogallic acid.

By the help of collodion, photography became for the first time, about the year 1853, a generally-practised pursuit, a recreation for the amateur and a business for the professional. Every year saw improvements in details and in the apparatus employed. Men of great ability—manipulatory and mental—directed their attention to the art (and "there were giants in those days"), and instantaneous photographs of places and persons were secured which were the first really deserving of commendation.

*Breaking Waves Photographed on Wet Collodion Plates in 1852.*—At the inaugural meeting of the Photographic Society of London (January 20th, 1853) one of the "fathers of photography," Robert Hunt, said that "he did not consider that we had yet arrived at the discovery of any process sufficiently instantaneous to fix on a photograph a representation of the movement of the waves. The white foam of the breakers is generally merely represented by a bright spot, instead of appearing in its true character of light transparent humid gauze."

The second number of the *Journal*† of the new society contained a letter from a Mr. William Jackson, of Lancaster, in reply to Hunt's remark, stating that he had obtained by the wet collodion process on glass, "scores of pictures of a turbulent sea, even without direct sunlight. By such methods I have obtained pictures of the moon in less than five seconds; and I have ascertained by the measurement of moving objects that the time occupied in taking some views must have been less than one-tenth of a second."

"The usual method of uncovering the plate by a slide is ill-adapted for rapid action, and is vicious in principle, inasmuch as the foreground, which needs most light, is by this means made to receive the least. To avoid this, I make use of a door, which covers the coated plate, and is hinged at the bottom; this is thrown open by unloosing the detent of a spring; it is drawn up again by a cord. A still better method is the placing of a stop before the back lens, close to it, and between the lens and the plate. This is allowed to fall by its own weight, and is drawn up again by a string; by this means more time can be allowed for nearer objects, whilst the sky and more distant parts of the picture do not receive too much light."

The lens used by Mr. Jackson was a portrait combination having an aperture of about  $f/6$ .

In this very interesting communication we note, with

\* "Guide to Photography," part i., p. 44.

† "Plain Directions," part i., p. 16.

\* *Philosophical Magazine* for September, 1890.

† April 1853.



some astonishment, that it was the common practice of those days—"forty years ago"—to dispense with any lens-cap, and to expose the plate by simply pulling out and replacing the shutter of the dark-slide; the two exposure shutters mentioned are interesting, the second of them being clearly the forerunner of Cadett's shutter.

In 1854 F. Maxwell Lyte increased the sensitiveness of wet-collodion plates by treating them with a mixture of grape-sugar and silver nitrate. He writes,\* "The plate thus prepared is excessively sensitive, inasmuch that I have taken, with a landscape lens and small diaphragm, ships sailing and waves moving and breaking."

*The First Instantaneous Photographs of the "Animals at the Zoo" taken in 1853.*—Among the early, if not the first, instantaneous photographs of animals were those secured on wet-collodion plates in the Zoological Gardens by the Count de Montizon. In describing his method the Count writes,† "As a proof of the sensitiveness that may be obtained, I produce a picture of a pelican taken the other day during heavy rain and violent wind, yet it will be seen that the feathers are unruffled and the image quite distinct.

"Here is a second example of the possibility of arresting a momentary movement. It is a picture of the pelicans about to receive their food. It is not good, but still their gestures are distinguishable."

*Le Gray as a Pioneer of Instantaneous Photography.*—Between 1851 and 1860 Le Gray, in France, produced many charming pictures of sea and sky, the exposures for which must have been between one-quarter and one-tenth of a second.

(To be continued.)

## Photographic References.

By MAJOR J. FORTUNE NOTT.

(Continued from page 102.)

### PLATES.

THE tyro in the photographic art, after he has procured all the necessary apparatus for its practice, and has surrounded himself with such requisite adjuncts as a dark-room of some description, which is supplied with the necessary trays and chemicals, feels he is in a position to commence work. At the outset, however, of his photographic career he has to make some selection among the numerous brands of plates that the manufacturers advertise, and a great deal depends upon the character of the plate he selects, for although it is not very probable that before he has gained experience the negatives resulting from his experiments will have any value except as lessons, nevertheless more disadvantages than one arise from employing plates that are not good or reliable. The beginner should be in a position to feel assured that any defects that are apparent in the results of his first attempts at negative making arise entirely through some error of his own creating during one of the many manipulations through which the plate or plates have undergone at his hands. It is disheartening to keep on experimenting with defective plates which under no circumstances can be made to do good work, especially when the stock of experience possessed by the photographer is not sufficient for him to be able to detect the source of his failures. We therefore say most emphatically that the beginner should not heed the advice which is frequently given recommending him to try such and such brands of

plates for first experiments because they are cheap; this fact being the only qualification which is given as a justification for their employment by him. It behoves him rather to get the best in the market, and they will ultimately be found the cheapest; but in order to be certain of the fact that he has procured a good article he should acquire as much information on the subject of plates as he can by studying text-books and reading articles thereon in the various photographic papers. Good plates have always certain characteristics which become apparent when being developed, and by learning to detect these signs in the early days of his work the amateur can soon acquire all the knowledge necessary to discern good plates from bad ones, even when they have been subjected to defective treatment in the camera, dark-room, or developing tray.

It should also be remembered that the reverse of this likewise holds good, for when the signs displayed by the plate can be properly read that the improper treatment it has received can be easily distinguished, and the lesson it teaches ought to be fully appreciated, or the operator is not destined ever to do really good work. The lack of information of this character is at the bottom of those absurd statements constantly being made by a certain class of amateur photographer that the plates made by this and that firm are very poor, which frequently is a grossly unfair description and a libel on a good article, although it may be made in perfect good faith. In innumerable instances the truth is that the failure of the plate to yield good results in this individual's hands is due to the fact that he is not sufficiently skilful to subject it to a proper test or possessed of the knowledge necessary to discern the source of the trouble. Justice demands fair play, and a gentleman will never willingly do any one an undeserved injury. These facts, however, are occasionally ignored by some amateur photographers who do not stop to think before giving vent to the exasperation caused through repeated failures by blaming the plates they use, instead of their own stupidity. As a matter of fact, it is very rarely that any brand of plates recommended by a *reliable* firm can possibly have the faults with which, as a rule, this class of worker endow them. At the same time a manufacturer who habitually places defective plates upon the market should be given a publicity which he may not appreciate, but which amateur photographers and others may do, for this form of trading is nothing more or less than a phase of obtaining money under false pretences. When, however, the circumstances necessitate such a step as this being taken, there should be no shadow of doubt in the evidence, and no one who is not possessed of a thorough practical knowledge of the subject is qualified to make such a statement. At any rate, inexperienced amateurs most decidedly should mistrust their powers of discernment in such matters.

We have drawn attention to this subject because it is one to which we think, from a careful perusal of innumerable letters on the subject of plates, the attention of amateurs should be drawn. A bad workman blames his tools, and it may therefore be said that a man who is always blaming his tools is a bad workman; certainly the photographer who is always blaming his plates for his failures never does good work.

Unless the amateur is an enthusiast in scientific and photographic matters, he is not recommended to make his own plates at the present day. Better emulsions than he can possibly make under any circumstances can now be procured commercially, although in the early days of dry-plate photography, this statement would possibly not have been correct. If, however, he should care to experiment in this line, there are several books published wherein the necessary instructions are to be found.

\* *Photographic Journal*, vol. ii., p. 30.

† *Photographic Journal* for 1st April, 1853.



Although nearly all brands of commercial plates necessitate a certain similarity of treatment, yet in some respects each one exhibits some special features or peculiarities that require attention, and in consequence a beginner at the work is strongly advised, when he has mastered the art of giving the correct exposure and correct development to a special make of plate, to continue its use until his experience is sufficient to warrant him in making any change—his increased knowledge may then suggest as desirable. For it may be safely stated to be a photographic axiom that no photographer will habitually do as good work as he is capable of doing, if he is constantly changing the character of the tools he has to rely upon for its accomplishment.

The sensitive medium on the ordinary dry plate, now largely employed for negative making, consists of an emulsion of gelatine prepared in a special manner to which a certain quantity of potassium bromide has been added. This emulsion has been made sensitive to light by having had nitrate of silver mixed with it. The emulsion having been spread evenly over a support consisting of glass or celluloid, the sensitive salts which it holds in suspension in extremely minute sub-division of particles make the plate sensitive at every point to any rays of light that may impinge upon its surface. The quality of each separate make of emulsion varies in one feature, namely, in its degree of sensitiveness, and it therefore follows that each batch of plates, even when they come from the same factory, cannot be in every particular exactly similar. It behoves even a skilled master in the photographic art to test the sensitiveness of his plates before using them, and in a greater degree the necessity exists for the beginner to do the same, for he has not acquired the skill necessary to make the corrections in the subsequent treatment of the plate which any error in exposure calls for. The only true way to procure this necessary information is to make a test, although as experience is gained the figures quoted as being the sensitometer number of the plate will be a close enough guide, under ordinary circumstances, whereby the exposure can be timed with a fair approximation to correctness. The figures referred to are the index numbers of a piece of apparatus known as Warnerke's sensitometer, which is an instrument designed for the purpose of ascertaining the degree of sensitiveness photographic plates register. Although not absolutely accurate, nevertheless for ordinary circumstances it is sufficiently so to be an extremely useful adjunct to a photographic laboratory. We purpose in a subsequent portion of this series of papers to give a more detailed description of this and similar devices of the same character, as well as particulars respecting the method of using them.

*(To be continued.)*

## Photographing in Iceland.—VII.

### THE ROUND TRIP IN DETAIL.

PACKING away from the frowning face of Hecla in good time on the 13th, we were all more or less anxious to push along to the Gullfoss, many glowing accounts of which golden waterfall we had heard. Our ride was a quick one, mostly galloping over grassy plains and easy, undulating hillocks, until we reached the ferry, which took us the usual hour and a half to cross. How we enjoyed that ride, and how thankful we were for it nobody but ourselves will know!

When we reached the Hvita River we found the current at the ferry frightfully strong and rapid, the stream being confined between high shingle banks. To cross the Hvita here would have been a rather big undertaking for us, had

we struck it earlier in the expedition. But as it was, by the time we reached the Hvita, we had got case-hardened and somewhat careless of danger. We hardly expected to see some of our ponies again, once they had got into the current. Happily, we all crossed safely, and then—what else could we expect after our pleasurable gallop?—the road became more wild, rugged, and difficult. We ascended and descended, all the time getting lower and lower, until we suddenly came to a rather formidable hill rearing itself like a wall directly in our line of march. We clambered up this incline without serious mishap, and on arriving at the top, the Gullfoss in all its majestic magnificence burst upon us. What a sight it was! The Gullfoss is indeed a masterpiece of Icelandic scenery—the “Niagara” of Iceland. It comprises a broad river, tumbling in two diagonal falls, each about 150 feet high, and 100 feet in width, into funnel-shaped fissures hardly 50 feet wide at the top, and not more than 10 feet wide at the bottom. The swirl and boil of the waters are terrific, the flying clouds of spray ascending like vapour to an enormous height, and drenching one through like fine rain. Of the two arms or falls which compose the Gullfoss, it is doubtful which is the grander—both having innumerable claims to this distinction. Just above the main fall the river descends in a series of picturesque cascades about forty feet in depth, and several hundred feet wide. The second fall foams into a ravine extremely narrow, the water rushing and boiling away, and widening as it goes between perpendicular cliffs of lava and basalt. The effect in detail and as a whole is most sublime.

Of course, our cameras were very busy at the Gullfoss, and our artist we left sketching away at the spot for all he was worth. Our luncheon at the falls, I may say here, was about spoiled by the flies. Perhaps there was a Jonah in the party, and we ought to have sacrificed him. In any case those flies were a positive epidemic—a plague of the first water.

Once away from the Gullfoss, which we left with real regret, we struck out for the world-famed geysers. We could see these from the top of a neighbouring hill, and the sight stimulated us. The ride from the Gullfoss to the geysers took about two hours—for us; our artist came in a bee line, and after a hard ride of an hour and five minutes, reached camp just in time for a hot dinner cooked in the Great Geyser. Here we were at last on the great hot spring field. What a succession of startling experiences we were having, to be sure. It all seemed like a play or a dream. There was the thinnest shell of earth between us and the boiling cauldron beneath; and who knows what else beside? This hot-spring region is a wonderful and uncanny region, in all conscience. Innumerable springs of water spouted all round us from holes of all sizes, shapes, and makes—springs of water, too, considerably above boiling point. If any of us felt a bit shaky, who could blame us? Whew! At the geysers we were favoured with an exceptionally brilliant sunset, which lighted up the many cauldrons and the clouds of spray and steam in most fantastic and dazzling fashion. Unfortunately, we did not see any very grand eruption. Great Geyser had spouted a day or two before in real good style, and it was almost too much to expect him to rouse himself so soon again. However, after we had been in bed a few hours a shock like an earthquake shock, accompanied by four loud detonations, persuaded us to shake off balmy sleep and rush into the open to see what was the matter—what had let go, as it were. To our delight, Great Geyser was active, but not to any considerable extent. He merely roused himself to a 20 or 25 feet column about 12 feet in diameter, and then subsided. We had previously pitched some coins into the old chap as a solatium, so perhaps he thought he had given



us our money's worth, whether we did or not. On the whole, we couldn't complain of his treatment of us. In fact, that he did oblige us, however scantily, put us into such good spirits, that when we went back under canvas horseplay was the order of things. Sleep was vanished, and in its place we substituted "wheezes," practical joking, and the rest until it was time to turn out. I suppose this was a lucid return of the days of our schoolboyhood. Unfortunately, there was no "new" boy's hamper to ransack; had there been, the lucid interval would have proved complete.

At 7 a.m. on the 14th, we turned out of bed, and photographing and sketching were once more seriously and vigorously taken up. Two hours later, sods having been thrown into the funnel of Strokkur, this gentleman obliged us with a magnificent eruption. The column of red, hot water must have reached a height of not less than 100 or 120 feet, the display lasting about twenty minutes in all. It was a splendid sight to see the mist, the fine spray, and the clouds of steam, each lit up with a rainbow. The cameras were out and about in a very, very lively way during this eruption. Our leader simply danced all round the column with a hand-camera, getting good shots from all sides.

It will be gathered from my notes of the geysers that the phenomena are very uncertain in their displays. Great Geyser is an autocrat, spouting frequently, sometimes, at others remaining quiet for days. Strokkur is more tractable. He can usually be induced to display by choking his "pipe" with sods, etc., as we choked it. The numerous smaller geysers, of course, sink into absolute insignificance when compared with Great Geyser and Strokkur. Still, they are very interesting and diverting. The basin of Great Geyser is almost a circle, the diameter of which is about 66 feet; the cylindrical well in the middle of the basin is about 80 feet in depth and 10 feet in diameter. A writer has remarked, "Taking the average height of the columns of water at 45 feet, and eight shots in a minute during a period of eruption of  $7\frac{1}{2}$  minutes, the discharge is 1,410,600 gallons; or take one column 80 feet by 10 ft. 4 in. diameter, gives 41,797 gallons at one discharge; a shot weighing 186 tons 11 cwt. 3 qr. 17 lb. from this great gun, to which the Woolwich Infant is but a babe." This is very nice reading, no doubt, these facts and figures; they read much nicer to us when we had left the geyser region some miles behind.

From the geysers we went on to Thingvallir, an extraordinary district, the only one of its kind, it is said, in the world.

I see that a correspondent has written the Editor of the *AMATEUR PHOTOGRAPHER* to the effect that in "Anthony's International Annual," vol. iii., 1890-91, p. 174, it is recorded that Dr. H. Valentine Knaggs was the first man to photograph Hecla. I have not seen "Anthony's Annual," but when I claimed for Mr. Paul Lange that he was the first man to photograph Hecla, I did so on the authority of Mr. Thorgrímur Gudmundsen, our chief guide. It is only fair to say that this gentleman is in possession of almost every bit of news affecting expeditions to Iceland available; and he was confident in his assertion that our leader was the first man to photograph "Hecla's crater." But perhaps the correspondent who has been kind enough to point out the apparent error has mistaken the tenor of my whole statement on this head. I did not state that Mr. Lange was the first man "to photograph Hecla." What I did state was—

"I have already said that the crater of Hecla had never hitherto been honoured with the attentions of a camera-man. There was a great deal of satisfaction—not to say pride—expressed among our party that Mr. Paul

Lange, the leader of our expedition, was the first man in the world to photograph on the extreme summit of Hecla."

Perhaps the mistake has occurred here. Photographs of Hecla as a mountain are, of course, common enough. However, it is well to be accurate, and I am glad that a correspondent has given me the opportunity of emphasising this point. Everybody who knows Mr. Lange will readily understand that he would at once withdraw from any false position in which he was unwittingly placed. If I have put him in a false position in this matter, I hope that he will spare my head when he sees me. He is an amiable soul, this Lange, as the Iceland "expeditioners" have good reason to know.

(To be continued.)

## Hands Off!—A Criticism.

(Contributed by an Amateur.)

ADORNING the walls of the Pall Mall Exhibition there is an entrancing representation of the lady best known to fame as Miss Mary Anderson. It is described as a carbon print, and is entitled, "If music be the food of love, play on" (357). Although it is hung rather above the line, it provokes the lively admiration of most visitors. The casual onlooker cannot but be impressed with the wonderful power and the refined discrimination shown by the sensitised emulsion which was capable of recognising and seizing hold of so captivating an effect as is portrayed. But, alas for the fallacy of first-sight impressions! on making a closer but yet cursory inspection, it will be at once seen that nearly all the particular charm which is so attractive is the product of the brush of some clever artist, whose handiwork has completely obliterated a very large percentage of the figure which forms the subject of the composition.

We refer our readers to the picture itself, and ask them specially to note the amount of paint on the head and drapery. The work is literally plastered with pigment. This, be it observed, is openly done and no concealment attempted, for which all credit is due to the exhibitor. He does not pretend that the enlargement is a pure photograph; he tacitly admits that it is not, and is therefore at no pains to hide the real truth, which is that the better part of the picture is due to the labours of a portrait painter.

But what of those others who claim to be men of "light and leading," and who, no doubt, look down upon such hybrids as the one above referred to? Do they also transform *their* sun pictures in this glaring fashion? By no means; they know full well that *ars est celare artem*, and therefore they prefer to "do good by stealth, and blush to find it fame;" consequently, they do not parade the fact that their prints have required artistic doctoring. Now, inasmuch as this said doctoring is surreptitiously done, in the same ratio is it deserving of censure. If these clever people will say, "This is a photograph invested with artistic merit by my brush and pencil," we will give them all praise for their dexterity in the dual role of photographer and painter; but we must respectfully ask them not to put forward as *pure*, photographic productions, views or portraits, in which the effects largely depend on the exhibitors' skill in the graphic art.

As this is, we hope, the beginning of a vigorous crusade against the adulteration of photography, we have, as far as is possible, moderated the criticisms which are appended upon some of the works at the Photographic Society's Exhibition which exemplify these mal-practices. Here we would observe that in examining prints hung on the walls of an exhibition it is, as a rule, impossible to recognise more than a tithe of the "faking" which they have under-



gone. And yet those who read this must clearly grasp the principle that, of the two, the unrecognisable "faking" is the most blameworthy; the sting lies in the concealed falseness. As Tennyson puts it,

"A lie that is half a truth is ever the blackest."

In the subjoined remarks we have intentionally restricted ourselves to the works of those who consider themselves representative of current photography.

56, G. Davison, to our eyes shows signs of being marked upon by pencil, chalk, or some other medium. At the same time the full extent to which the effect has been helped can only be guessed at, because the paper is so rough that a good deal may have been done without being detected.

54 and 55, by the same exhibitor, appear to be aided by manipulations of a selective and discriminating character, not the outcome of pure photography. We should here like to enter into the question of working up of negatives, but it is one beyond the limits imposed by this article.

107, Lyd. Sawyer, "Crewel Work:" The face of the lady sewing by the window bears signs of being worked up—notice the high lights. The other lady's head has been severely treated—specially note the outline. The man's face does not seem to have escaped attention. In 122, by the same exhibitor, which gained a medal, the working up of print is not so apparent.

165, J. B. B. Wellington (medal), has apparently received the aid of colour on the print.

179, J. E. Austin, does not err so greatly, but his prints appear to have been worked upon; carefully scan the water.

232 (medal), and 223: On these we cannot but think that the brush has been lavishly used, and, be it said, with the happiest effect, for which Mr. Lyonel Clark deserves congratulation.

Note in 232 the deep shadows under the bridge, also on the gate, and the figure crossing the bridge.

In 233, note the water. Several rushes have been evidently put in with opaque colour; it also looks as if an instrument known as the "air-brush," had been liberally used—see left foreground, and shadows in reflections under trees and lock.

289 to 298, G. Davison: This series gains considerably by the judicious toning down of high lights, apparently with colour.

347 ("Kittens"), Gambier Bolton, is indebted to the exhibitor for artistic finishing touches.

399, H. Tolley (medal), bears indications of working-up in sky.

462 is another work which our readers should particularly study. The brush work is palpable, and, to Mr. Clark's credit, undisguised.

In citing the above examples, taken almost haphazard from the pictures of the most noted men, the object is to emphasise the alarming extent to which the demoralising practice of meddling with prints has grown, and also to apprise the leaders that the general body of amateurs view with disfavour such meddling, and look to the medallists for a reformation. It is they who, by framing a kind of "self-denying ordinance," can most effectually stem this evil which threatens to submerge photography beneath a wash of water-colour.

So far from these tamperings with prints elevating the position, or encouraging the development of photography, they have the very reverse effect. The devoted student who scorns to produce anything less truthful than the product of pure photography sees his conscientious and painstaking, his may-be beautiful, nature-breathing works

passed over in favour of misty smudges, made intelligible by the aid of the paint pot.

As for elevating the art science, on the contrary, these obnoxious tricks are degrading—degrading because they are false and often perpetrated in secrecy; degrading because they are a confession of weakness and a symbol of defeat.

In conclusion, we appeal to the Photographic Society of Great Britain not to allow another exhibition to be held under its auspices without drawing a hard-and-fast line between what is and what is not undeified, unalloyed, pure photography.

## The Present State of the Focus Question.

BY H. P. ROBINSON.

I HAVE of late been frequently asked why I have expressed my admiration of certain out-of-focus pictures, by Mr. Davison and others, seeing that I have been a constant opponent of the Naturalistic School. My reply is, that the present practice of these clever photographers is diametrically opposed to the mistaken doctrines of this so-called school as so dogmatically put forth by Dr. Emerson, and that their want of focus, although, as at present, exaggerated and carried to an extreme I cannot commend, is in the right direction. This difference of principle between Dr. Emerson's method and Mr. Davison's perhaps requires explaining, for I am constantly hearing the latter's pictures quoted by young amateurs as examples of Dr. Emerson's practice, and, indeed, if I may judge by parts of an admirable article on Artistic Focus, in the new number of the *Quarterly*, by those of more experience.

The difference, then, is this: the vital part of Dr. Emerson's doctrine is *differential focussing*. That is, the principal object must be sharp, or nearly sharp, and the rest of the picture out of focus in varying degrees; and he has recently confirmed his method and condemned "pinholes." Here are his words:—"The pinhole picture is inadmissible, because the smallness of the aperture falsifies modelling and perspective. The general diffusion or softness falsifies tone, and there is no power of differentiating;" adding that, "Using a large aperture of an aplanatic lens is the only legitimate way," and that "the only method is my method!" Now, on the other hand, the photographs produced by a pinhole, or with a transparent medium introduced between the paper and the negative during printing, are examples of *diffusion of focus*, or the equal spreading of the focus, or want of focus, over the whole picture. Thus the naturalistic fallacy that the human eye was a fixed instrument, and could see part only of a scene in focus at once, and could at the same time see the rest of the scene out of focus, is thrown overboard by certainly its most able, trained, and educated advocate, and the practical (if not theoretical) truth for which I have always contended, viz., that the powers of adaptation of the eye enabled that organ to see for all practical purposes the whole of a scene at once, is recognised; and Mr. Davison, now he has shaken off his naturalistic fetters, is producing photographs which not only point to something better, but may now be called works of art.

It may perhaps be worth while pointing out once again that I have always advocated "a certain amount of softness," but I have, of course, never gone to the extreme length now practised. The protest against optical sharpness is not new. A quarter of a century ago there was an outcry against excessive definition. Claudet introduced a wonderful invention for moving the lenses during exposure, and causing more diffusion than that produced by a pinhole;



and the late Mr. Dallmeyer gave us a lens which allowed diffusion of focus at the will of the operator. This he did at the urgent request of Mr. Blanchard, myself, and several other photographers. All we wanted was greater depth of focus and softer images without resorting to putting the image out of focus;—that folly remained to be invented later on—our only merit was that we induced the greatest optician of the time to produce a lens which would give us softer pictures. We also hoped to get (and I think we succeeded) a truer expression of light, air, and space. If further evidence of the kind of quality we wanted in a lens and got is required, it will be found in the following extract from a notice in the *Photographic News* of some trial pictures, done for Mr. Dallmeyer, with the lens, by Mr. Blanchard and myself:—

"The series of pictures before us are especially brought under our attention as examples of the work of a new form of lens designed by Mr. Dallmeyer. Great as have been the improvements of photography, it has required a long time to produce such a lens as the instrument of the work of which these pictures are illustrations. Opticians have been very unwilling to believe that in a lens the object required was a tool suited to the production of pictorial effects. Their aim has been to meet the wants of photography just so far as these wants were compatible with recognised optical accuracy. They have aimed to get rid of spherical and chromatic aberrations, to get a perfect focus, freedom from distortion, etc.; but, as a rule, they have been very shy of depth of focus, or the power to define sufficiently objects on various planes. That capacity was generally a result of spherical aberration; and as spherical aberration was technically a defect, it was of little avail for the photographer to say, 'Never mind, let me have that defect; it suits my purpose.' Mr. Dallmeyer has, however, given the pictorial wants of photographers his attention, and has in this lens made it his special aim to secure a large amount of depth of focus, the lens working with large aperture, and without loss of relief and vigour."

Another outcome of this desire for diffusion of focus was the introduction of Dallmeyer's patent portrait lens, in which increased facilities were given for distribution of focus at the will of the operator. In a paper read before the Photographic Society of London, December 11th, 1866, Mr. Dallmeyer said, "If it had not been for the pressure put upon me by Mr. T. R. Williams, Mr. Jabez Hughes, Mr. H. P. Robinson, and Mr. Blanchard, the instrument now before you would have remained unmade."

I quote this ancient history only to show that this demand for diffusion of focus is not new, and that the love of sharpness has not been so universal as some suppose. The above is not written to suit the exigencies of the moment. If the curious reader will turn to the *Journal of the Camera Club* for June, 1889, he will find that it consists of extracts from a letter of my own in reply to one of Dr. Emerson's always welcome and playful attacks on me, to the effect that I had always advocated "sharpness," which accusation, however, he was not able to substantiate.

The examples in the present exhibition by Mr. Davison and Mr. Lyonel Clark—I have noticed no other prominent examples, except a photo-etching—are certainly very attractive, and point the way to something still better. We must have the same artistic effect without so much sacrifice of the means by which the effect is produced. It is not true art to say admiringly of a photograph that it is "not a bit like a photograph." Are we ashamed of our art that we want to disguise it, and make it look like something else? The perfect photograph will be that in which the best qualities of other arts are assimilated without the loss of its own distinctive qualities.

## Science Notes.

M. DANTEL COLLADON read a paper before the Paris Academie des Sciences, on September 22nd, on "Some Curious Phenomena Produced in a Current of Water." The author exhibited two photographs taken at Geneva above a river bridge having a grating stretched across its arches. By moving certain of the bars, miniature water-spouts and other phenomena are produced. These forms are conspicuously visible, and have been photographed in plan and elevation. The paper contains some observations of their average dimensions.

Most photographers pick up the *Theatre* from their club or library tables if it be but to study the admirable photographs of actors and actresses which it regularly contains. The October issue has portraits of Miss May Whitty (by Downey), and Mr. Joseph Tapley (by Barraud).

An architect, writing to an American trade journal, points out the great value of photography in building operations, and more especially when a building is being erected close to other buildings of smaller size. The greater weight of the new building and its settling is apt to crack the contiguous walls, and a claim is often made for compensation by the owner thereof. If, before the contemplated building is commenced, the existing house properly be carefully photographed from every point of view, the pictures showing every mark or crack or other dilapidation, such photographs will constitute valuable evidence by and by, should a dispute arise as to the amount of damage done by the pressure or settling of the new work. The owner of the old premises may assert that a certain crack has made its appearance since the new buildings were erected; but if the crack appears in the photograph, it is clear that he is mistaken.

The dispute as to the locality and existence in Brussels of the building in which the famous ball took place the night before the battle of Waterloo still continues. The doubt shows the usefulness of the "photo-surveys" which are now being projected. But Waterloo was fought in the pre-photographic age!

Writing on "Cloud Nomenclature" in the last number of the *Quarterly Journal of the Meteorological Society*, Capt. Wilson-Barker says that "I may state from experience that a good and complete collection of cloud photographs is indispensable for observers."

The descriptive letterpress to the new number of *Sun Artists*, which deals with the work of the late Mrs. Julia Cameron, is from the pen of Dr. P. H. Emerson. It will appear during the present month.

I have lately been using with complete success the single solution developer of Dr. Jumeaux. It can be used over and over again until completely used up, and is certainly a better developer of its class than I thought it possible to prepare.

Having used Anthony's celluloid films very largely this summer, I got Mr. Geo. Wheeler, of Manchester, to make me a storage case, which has proved a great convenience. It is a "book" with folding covers (quite light-tight), and provided with twenty-four leaves of pure paper. The centre leaf has a mark on the edge, so that exposed can be separated from unexposed films. For use with a changing-bag this storage case is a great convenience. The desired number of unexposed films is placed between its leaves before starting, and the manipulations in the changing-bag are then effected with great ease. The tourist will find the case useful under any circumstances, as it forms a storehouse from which unexposed films can be removed, or to which exposed films can be added, without all the trouble of the abstraction of the films from the numerous envelopes in which celluloid films are sent out.

The heart of the photographer has been gladdened by one of the finest autumns on record: but the time is now at hand when the out-of-door kit will be laid aside by most workers. My plan is to go over the whole equipment, and store it in perfect order! Rub all the wood-work with an oiled rag; fit caps to each end of your lenses; oil the screws, etc., and see that every article is complete and in its place. Then the thunder-storms and the snow, the hoar-frost and the skating scenes will not find you unprepared. The number of good effects to be secured in winter is surprising. How novel and charming many of our famous ruins and public buildings look when partly covered or outlined with snow; yet this is an effect which is rarely photographed. Most winter effects must be secured at the moment; and if hours have to be spent in putting one's apparatus in order, such



chances are lost. Therefore lay up your equipment in perfect order.

Now, too, is the time to carefully assort and classify the negatives taken during the past season. The name and date of each should be written on its margin, on the film-side, in indian ink. For easy reference and selection nothing can equal the plan of storing one's negatives in the plate-boxes made by Arundel and Marshall (of Penn Street, Hoxton), and which were medalled at Pall-Mall three years ago.

Selecting his best negatives, the amateur should study each with a view to improving its printing qualities. By careful spotting, and by covering the back of the negative with ground-glass varnish, tinged yellow by a crystal of iodine, the varnish being then scraped off the too dense portions, good negatives can be made better, and poor ones passable. F. G. S.

## Notes from the Liverpool Centre.

(By our District Editor.)

At the monthly meeting of the Walton Photographic Society on Wednesday, 1st inst., in the Arnot Street rooms, Mr. Jno. Parke was down for "Practical Hints on the Manipulation of the Lantern" (oxy-hydrogen). Mr. Beaton, of the well-known firm of Messrs. Atkinson and Son, exhibited Watkin's exposure meter and other novelties. Members were requested to bring a few of their own slides to the meeting, in order that they might be passed through the lantern by Mr. Parke. The officers of the Walton Society this year are Mr. Henry E. Burn, President; Mr. Jno. Kennedy, Secretary and Treasurer; Messrs. Parke, Beaton, Davis, Tyerman, Latimer, and Brown, Council. Judging by the reports forwarded me, the Waltonians should have a successful session this winter. They have some very able workers in photography in their ranks.

On Thursday evening this week, the Birkenhead Association hold their ordinary meeting. The agenda paper embraces several interesting items. Mr. G. E. Thompson, Vice-President, is to give a lecture, "Lakes and Cities of Northern Italy," illustrated by 120 lantern slides, taken by the lecturer in the spring of this year. The lecture is to be followed by the Boston (U.S.A.) Camera Club's set of slides, "The White Mountains of New Hampshire." A novelty in the shape of an exhibition of results of "Obernetter Printing" by Gaslight, and of a copy of Mr. W. H. Hunt's "Humpty Dumpty sat on a Wall," which gained for the exhibitor a prize in the recent AMATEUR PHOTOGRAPHER Competition, completes the major part of the business.

The annual prize competitions of the Birkenhead Association for 1890 are attracting attention. Work must reach the Secretary, Mr. C. B. Reader, not later than 10th November.

At the Liverpool Society's rooms a new set of slides—"In and about Columbus"—have just been received. After exhibition here the set will be sent round the societies of the United Kingdom.

The President of the Liverpool Association took some lovely pictures of the Channel Fleet during the recent stay of that squadron in the Mersey. He got the shots from the deck of a private steam launch. At present he is enlarging the studies, I believe.

Members appear to be waking up in our centre. The annual competitions in connection with the Liverpool Society are announced. An important meeting of the Exhibition Committee has been held during the week, at which business of moment was definitely settled.

Next Tuesday the first of the series of ten lectures on "Photographic Chemistry" will be given in the University College, Liverpool. The first lecture comprises the "Relation of Chemistry to Photography, Fundamental Laws of Chemistry; Oxygen, Hydrogen." Each lecture of the series will be illustrated by experiments and lantern slides, and will treat of the fundamental principles of chemistry in their relation to the various photographic processes. The subject, as a whole, will be exhaustively treated, and no previous knowledge of chemistry will be necessary, the course being specially designed for practical and amateur photographers, and as an introduction to the more advanced course on the "Chemistry of Photography."

## Apparatus.

### ARCHER'S NEW DISSOLVING-VIEW LANTERN.

THE object of this invention (of Archer and Sons, 43, Lord Street, Liverpool) is to simplify the working of dissolving views.

The main feature is in the use of only one light instead of two.

The condensers are placed one each side of the light, right and left of the operator, thus using the light from both sides instead of only one as usual. The light coming from the condensers is thrown forward on to the screen and in front of the operator by means of reflectors placed between the objectives.

The whole of the optical arrangements work from a central pivot placed exactly under the centre of the light, and both discs adjusted to coincide upon the screen. The working of the instrument is all done from behind instead of from the side, and everything is within easy reach and complete control of the operator, who stands facing the screen, and can thus see exactly what he is doing.

The original instrument, with a three-wick oil lamp, works very well, and has been greatly admired by all who have seen it; 1st, for its easy manipulation; 2nd, novel rolling curtain effect (the views rolling one into the other, or dissolved, or *vice versa*, at will); 3rd, its compactness, there being no waste of space. The whole apparatus is very portable, and ingeniously designed.

Everything that two lanterns have been doing can now be done with one.

Lately the inventors have been experimenting with a view to supplying the limelight, and have succeeded in making a double jet playing upon both sides of one lime cylinder placed in the centre, which answers very well, the focal distance from condensers being the same as oil light. Should it be required otherwise (say for long distance), an ingenious double slot and screws have been provided, so that the fronts with condensers can be moved to and fro.

The instrument is not yet ready for sale (and may not be for a couple of months), owing to the many points of novelty (the parts of which have to be made specially), and also to the large number being made to enable them to be sold at a reasonable price.

**CHEAP MAGIC-LANTERN SLIDES.**—We have received from Mr. J. W. McLellan, of 36, St. Paul's Road, Canonbury, London, a set of slides, which are carefully coloured, and are supplied at six shillings per dozen. For such a price they are really a wonderful production. The slides include "Tours," "Visits to the Zoo," "Rambles round Warwick and Shakespeare's Birthplace," "British Museum," "Egypt," "River Thames," etc., etc. Mr. McLellan will be pleased to forward sample slide for sixpence.

**THE FRY MANUFACTURING COMPANY.**—This firm, whose works are at Kingston-on-Thames, have their offices at 5, Chandos Street, W.C. At this address, Mr. Fry or Mr. Hayman will be pleased to see anyone interested in photography. The works are replete with every possible appliance for turning out the specialities of the firm, which include Kingston Special Dry-plates, Argentic Bromide Paper, Bromide Papers and Opals, Enlargements, Lantern Slides, etc. The plates made by the firm are known all over the world, and so are, practically, all their manufactures. In enlargements they have done some excellent work, and they are produced at the hands of a special staff of artists. One of the prettiest novelties of the season is to be found in Fry's Ivory plaques, upon which photographs are printed; these mounted on velvet are most effective, and have a very large sale. The Company make a special feature of enlarging from hand-camera negatives, and they make them 8 by 6, carefully mounted or unmounted, prices ranging from 17s. 6d. to 23s. 6d. per dozen. Any photographic chemicals may be obtained. The Celluloid and Ivory Films have already gained a high reputation; the films are coated with the same emulsion as the Kingston Special, or 60-times plates. In the catalogue before us we note a very useful section under the heading "Inland Parcel Post Department," giving rates for dry-plates, opals, bromide paper, films, and sundries; this is further aided by a telegraphic code. Our readers should make early application for a copy of the "Fry Manufacturing Company's Catalogue;" if they have not already received it—there is much in it to instruct and entertain.



## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRKENHEAD PHOT. ASSOC.**—At the meeting on the 9th inst., the Vice-President, Mr. G. E. Thompson, read a paper on "The States and Cities of Northern Italy," which was illustrated by 120 slides made from negatives taken by the lecturer in the spring. This was followed by the "White Mountain" set, and Mr. Hunt, Mus. Doc., showed a copy of his picture, "Humpty-Dumpty sat on a Wall," which gained a prize in the recent AMATEUR PHOTOGRAPHER "Genre and Figure Study" competition. Mr. J. A. Forrest showed Obernetter prints made by gas-light.

**CAMBRIDGE CAMERA CLUB.**—A large number of the members mustered on the 2nd inst. to view the collection of prints of the AMATEUR PHOTOGRAPHER No. 17 Competition, which were kindly lent by the Editor. The collection consisted of some forty photographs. The prize picture, "Norfolk Homes," by H. R. Arnott, was especially noticed, and several others were favourably criticised. Mr. C. Smerdon then presented the Club with an enlarging and reducing lantern, which was received with loud applause. A vote of thanks was accorded to that gentleman for the gift. After some business was gone through and several new members elected, a hearty vote of thanks was given to the Editor of the AMATEUR PHOTOGRAPHER for loan of the photographs.

**CORNISH CAMERA CLUB.**—The annual meeting and supper of this club was held at the Union Hotel, Penzance, on the 30th ult. The President, Mr. W. E. Baily, of Lynwood, occupied the chair, and the Hon. Sec., Mr. A. K. Barnett, F.G.S., the vice-chair. After the supper the election of officers for the ensuing year took place. The following gentlemen were unanimously elected:—President, W. E. Baily, F.L.S.; Vice-President, Dr. B. Vivian; Council, Messrs. Barnes, Richards, N. H. Symons, J. Branwell, jun.; Hon. Treasurer, W. H. Percy; Hon. Secs., A. K. Barnett and H. Tonkin, Science Schools, Penzance. The club has obtained a commodious dark-room and well-lighted studio at the new Science Schools, and hopes to be in full working order in a couple of weeks' time. To intending visitors the Hon. Secs. will be pleased to give information re the neighbourhood.

**CROYDON CAMERA CLUB.**—Mr. L. de Clercq, the Hon. Secretary of the above club, has sent in his resignation, because his business engagements will not allow him to give adequate attention to the duties of the office which he has hitherto held. The club will, however, continue to have the benefit of his assistance as an ordinary member. At the ordinary meeting on the 9th inst. the subject for discussion was "Instantaneous Photography," which was illustrated by a set of some sixty prints, kindly lent by the Editor of the AMATEUR PHOTOGRAPHER. In addition, a collection of prints by members sent in competition for the President's prize was on view.

**EALING PHOT. SOC.**—The opening meeting of the first session of this Society was held on the 2nd inst. The President (Mr. H. Peal) delivered an address dealing with selection of view, focus, and exposure. He said it was desirable to go over the ground first without the camera, and note the exact particulars of the view, the best position, light, and time of day for taking

it. A view-meter was extremely useful, and Mr. Peal showed one of his own design, consisting simply of a slightly curved strip of cardboard, about 3 ins. wide, which folded up for the pocket, and when opened out for use, formed a hollow truncated pyramid, through which was seen the extent of view included by a whole-plate lens of 9 or 12 in. focus, according as the larger or smaller end was placed next the eye. The front should be raised in preference to tilting the camera, but if the latter course was unavoidable, the back must be brought to a vertical position and a small stop used. With small-sized plates the image should be sharp all over; but this was less necessary, except for the principal object, with the larger sizes, though Mr. Peal at the same time disclaimed any sympathy with the extreme "naturalistic" school. Exposures should be for the nearest shadows. The exposure diminished with the distance of the object; thus, an object requiring one second at 10 feet would need only half a second at 30 feet, a quarter of a second at 100 feet, one-eighth of a second at 100 yards, one-sixteenth of a second at a quarter of a mile, and beyond that distance only about one-twenty-fifth of a second. Exposure tables were useful, though the actual exposure necessary for any given subject could only be learned by experience. In recording exposures it was desirable for ready comparison to reduce them to a standard stop and light. A discussion followed. A number of prints and pieces of apparatus were exhibited.

**EDINBURGH PHOT. SOC.**—The ninth ordinary meeting of this Society was held on the 1st inst., in Dowell's Rooms, George Street, the President, Mr. Hippolyte J. Blanc, in the chair. The Chairman made a statement regarding the preparations being made for the forthcoming photographic exhibition to be held in the galleries, Royal Scottish Academy. The circulars sent out over a very wide field, had been responded to in a very encouraging degree, and the applications already received were nearly equal to those which went to the formation of the former exhibition. The whole of the apartments of the National Galleries were to be occupied, and it was proposed that the exhibits should follow a chronological order in respect of specimens of work, material, and apparatus. The Lord Provost had agreed to open the exhibition, an important feature of which would be a series of lectures regarding photography by gentlemen well qualified to give instruction on various branches of the subject. The Secretary then read a paper by Mr. W. Harding Warner on the development of dry plates.

**ENFIELD CAMERA CLUB.**—A meeting of the above Club was held at the Lancaster Coffee Tavern, Silver Street, Enfield, on the 1st inst., Mr. Pinkney, President, in the chair. Through the kindness of the Editor of the AMATEUR PHOTOGRAPHER the photographs of the "Monthly Competition, No. 13," were exhibited, many of which elicited great admiration. After a thorough inspection of all the prints, Mr. Pinkney proposed a cordial vote of thanks to the Editor for allowing the societies the privilege of having these prints. He said much was to be learnt from an examination of such pictures as those which they had had the pleasure of inspecting that night. Mr. Clements briefly seconded the proposition. It was resolved that the next field-day be held on Saturday, 11th inst., to Nether Hall, near Broom's Barn.

**JERSEY AM. PHOT. SOC.**—A meeting of the Society was held at its rooms on the 1st inst. It was decided, on the proposition of Mr. Toms, seconded by Mr. Gruchy, that Wednesday, Dec.

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot. Soc. of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
.....	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Wolverhampton Phot. Soc.: ... ..	Wolverh'ton.	Nov. 10.	Nov. 15.	J. W. Evans, 52, Darlington St., Wolverhampton.
Edinburgh Phot. Soc.: ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Phot. Soc. of India ... ..	Calcutta.	*Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor, I.W. ... ..	Ventnor.	Jan. —.	—	J. G. Livesay, Cromartie House, Ventnor.
Liverpool Am. Phot. Assoc.: ... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Gloucestershire Phot. Soc.: ... ..	Gloucester.	April 17.	April 27.	A. H. Clinch, Bank Buildings, Southgate Street, Gloucester.
Vienna Club of Am. Phot.: ... ..	Vienna.	April 30.	May 31.	Carl Srna, VII., Stiflgasse 1, Vienna.

\* English and European exhibits should be despatched not later than Oct. 1st. Mr. J. S. Gladstone, Woolton Vale, Liverpool, will give further particulars.



17th, be appointed for the annual exhibition of pictures. Some discussion followed as to what pictures should be admissible, and it was understood that local pictures only were included, and must be entirely the work of the exhibitor. Mr. Toms said they could be hung in the room at any time. The Vice-President then called upon the Secretary to read his paper on "Negative Making." At its conclusion a vote of thanks was proposed by the Vice-President, seconded by Mr. Andrews, and suitably acknowledged by the Secretary. The proceedings then terminated.

**LANTERN SOCIETY.**—At the meeting on the 13th inst., Mr. Pringle will give an address on "The Modern Applications and Appliances of the Lantern."

**LEITH AM: PHOT: ASSOC.**—The ordinary monthly meeting was held on the 30th ult., the Vice-President (Mr. T. W. Dewar) in the chair. A paper was read by Mr. J. L. Lorimer, entitled "The Management of the Camera in the Field," being one of a series of elementary papers intended for beginners. The Hon. Sec. read some notes on "Printing through Coloured Glasses," and showed some examples, kindly lent for the occasion by Mr. Otto Schölzig, printed on his albumenised and matt-surface papers.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—A meeting was held on the 3rd inst.; Mr. A. H. Miles, the Vice-President, in the chair. Mr. Alex. J. Agnew, of the Britannia Works, gave a practical demonstration on "Alpha Paper," which was listened to and watched with great interest by the members. After reading a short paper, Mr. Agnew proceeded to make seven exposures from three negatives. These exposures varied from three-quarters of a second upwards. He then developed the prints, clearly explaining all the processes as he proceeded, and answering numerous questions put to him. He then toned and fixed the prints, showing the various tints which could be produced, from red to purple. A vote of thanks was given to the Britannia Works Company, coupled with the name of Mr. Agnew. The next meeting will take place on the 17th inst., when a demonstration will be given on the "Development of Lantern-Slides," "Hydroquinone," by Mr. Stodart; "Pyro," by the Secretary, and "Ferrous Oxalate," by Mr. E. Eastwood.

**MORLEY AND DISTRICT AM: PHOT: SOC.**—A meeting was held on the 30th ult., the Vice-President (Mr. J. H. Spence) in the chair. A paper was read by Mr. W. Richardson on "Printing," after which followed a discussion. This terminated the first session, which has been a decided success.

**NORTH MIDDLESEX PHOT: CLUB.**—At the fortnightly meeting of this club, last week, at the Jubilee House Hall, Hornsey Road, the chair was taken by Mr. Lethbridge, and a paper on lantern-slide making was read by Mr. Beadle. In the course of the evening Mr. Hiscock exhibited some plate prints in platinum, and Mr. Paul exhibited an Eclipse lantern. Mr. G. R. Martin, of Harringay, is the Hon. Sec.

**ROSSENDALE PHOT: ASSOC.**—The annual meeting for the election of officers and council was held on the 29th ult., when the following were elected: President, Mr. Joseph Ashworth, of Haslingden; Vice-Presidents, Messrs. Joseph Holt and John Taylor, of Rawtenstall; Hon. Sec., Mr. Walter Holt; and Financial Secretary, Mr. W. Chadwick. The above-named officers, and Messrs. J. Booth, J. H. Hargreaves, A. Heap, and F. G. Killingbeck form the Council. There was an exhibition of members' work, and samples of bromide-printing and enlargements were sent by Messrs. Morgan and Kidd, the Britannia Works Company, and the Fry Manufacturing Company.

**SOUTH LONDON PHOT: SOC.**—The first meeting of this Society at their new quarters, Hanover Hall, Rye Lane, S.E., was held on the 3rd inst., Mr. Edwards presiding. Five members were elected, and three nominated, after which a number of slides made by various members of the Society were thrown on the screen. Amongst them, a series taken with the "Ideal" hand-camera created much amusement, while a series of microscopical slides was also shown.

**SOUTHEAST AM: PHOT: SOC.**—The third general annual meeting was held on the 4th inst., the President, Captain T. Lamb, in the chair. The Council's report stated that twenty members, having left the neighbourhood, were lost to the Society last Christmas, and that the present number of members was thirty-one. During the past year Captain Lamb gained fourth prize in the AMATEUR PHOTOGRAPHER Stereoscopic Slide Competition, and Mr. R. Leventhorpe gained a bronze medal for "Landscapes" in the Amateur Photographic Association's competition. The Treasurer's financial statement showed a balance

in hand of nine pounds. The following were elected officers for the ensuing year: President, Captain T. Lamb, South Lancaster Regiment; Vice-President, Lieutenant F. W. Cobb, R.N.; Council, A. Fisher, A.O.A., Dr. Newby, C. H. Grant, Dr. Wardrop; Treasurer, J. J. Thornton; Hon. Secretary, F. Lord; Assistant Hon. Secretary, Geo. Whitefield. It was decided in future to hold the general annual meeting on the third Wednesday in January instead of October. After a lengthy discussion it was finally arranged, as an exhibition of photographs had been given recently in the Town Hall in connection with the hospital bazaar, not to hold the usual annual exhibition this year; but that an exhibition of members' photographs should be held during December in the Society's room; also that there should be no class prizes, but that the judges should have power to award medals (not exceeding six in number) amongst those members whose work was considered worthy of this distinction.

**TOYNBEE CAMERA CLUB.**—At the meeting on the 14th inst., Mr. A. E. Birch will read a paper on "Enlargements," and on the 16th inst. there will be an exhibition of AMATEUR PHOTOGRAPHER lantern slides.

**TUNBRIDGE WELLS AM: PHOT: ASSOC.**—On the 2nd inst. the ordinary meeting of the above association was held, when there was a fair muster of the members present, as matters connected with the Exhibition which it is proposed to hold on the 26th, 27th, and 28th of November were discussed. The Hon. Secretary read the report the Committee had prepared, which on being put to the meeting was carried unanimously. Schedules are being prepared, and will be sent out shortly. Negatives and prints were shown, the result of the excursion to Ashurst. On Saturday, the 4th, the members were specially invited to Broomhill, by Sir David Salomons, who is the patron of the Association, and takes a great interest in its doings, and with thoughtful kindness Sir David had included Mr. H. P. Robinson in the invitation, which was much appreciated by the members. A start was made from Tunbridge Wells about 1.30 in a brake, and Broomhill was reached at two o'clock, where the members, numbering seventeen, were received by Sir David, when, at his suggestion, the light being good, cameras were speedily unpacked, and a move was made for the grounds where plates were soon being exposed round the lakes, and also on the mansion. Sir David during the afternoon took several groups of the members, after which they had an opportunity of viewing his dark-room, studio, etc., all of which are admirably fitted up. A start was made for home just before six o'clock. All were thoroughly delighted with the visit, and expressed hearty thanks to their generous patron for his kind hospitality.

**WALLASEY PHOT: ASSOC.**—The monthly meeting was held on the 1st inst., Mr. J. W. Gregg in the chair. A paper was read by Mr. D. Kendall on "Art in its Relation to Photography." The reader commenced by saying that it is a common error that no special training is necessary to see pictures properly, and, after quoting from Ruskin's "Modern Painters" on the faculty of artistic sight, the capacity of the camera with reference to the portrayal of Nature was exhaustively considered. The composition of pictures, and several simple rules for same, were then gone into. The reticence of many painters to admit the camera's aid to art was explained by the fact that the vast majority of those who practice photography are ignorant of the demands of pictorial art, though the art schools of to-day are gradually but surely making those rules known. After a discussion, in which criticism took place on the artistic merits of several examples handed round, Mr. Gregg exhibited several opalines, and Mr. Wilkinson some very good photographs, including cloud effects. A new set of colors for tinting photographs, which are said to be very simple to use, were shown by Mr. Foyer.

**WEST KENT AM: PHOT: SOC.**—A meeting of members was held on the 1st inst. at Bexley, Mr. A. R. Dresser in the chair. There were eleven new members elected. The business included the election of officers for the ensuing year: President, Mr. Andrew Pringle; Vice-President, Mr. A. R. Dresser; Hon. Sec. and Treasurer, Mr. E. Hawkins (Sidcup); Council, Messrs. Jones, Hastings, Starnes, Crowe, Court, Reeves, Nash, and Mordaunt. It was resolved that the meetings should be held fortnightly, on Wednesdays, alternately at Bexley and Sidcup. The next meeting will be at Sidcup, on the 15th inst., when there will be an exhibition of lantern slides and the AMATEUR PHOTOGRAPHER Competition photographs. The Editor of the AMATEUR PHOTOGRAPHER has placed at the disposal of the Council a silver meda



or competition. The society is a very promising one, and it is expected there will be a very large accession of members this season.

WOLVERHAMPTON AM: PHOT: SOC:—The Secretary advises us that the exhibition is strictly confined to amateurs, except in the two classes marked professional, alluded to last week.

**WARNING TO CYCLISTS.**—The Commissioner of the City Police forwards us the following notice, which we publish for the benefit of any of our readers who may be cyclists: "Cyclists are reminded that they are subject to the ordinary regulations for conducting the traffic within the City of London. Any person riding a bicycle or tricycle furiously, or so as to endanger the life or limb of any person, or to the common danger of passengers, in any thoroughfare, will be prosecuted under the provisions of the City Police Act, and on conviction is liable to a penalty of forty shillings."

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4224. **Hand and Ordinary Quarter-plate Camera, Combined.**—What cameras of this description are at present on sale?—A. N. G.

4225. **Purple Tones.**—How can I obtain the beautiful purple brown tone seen in some of the photographs of our best professionals? I saw some photographs by Valentine and Sons which were perfect in tone, a rich brown in the deeper parts of the picture, merging into a purplish violet in the lighter parts of the photograph. How can I obtain this purple-brown tone? Could I get it by fuming Scholzig's paper for fifteen minutes, and toning in an acetate bath? The prints, before leaving the bath, are beautiful in colour, but after fixing, the colour is nearly all gone. I give two changes of water before toning. Should I wash more, and would I get a purple tone if I washed away all the free silver in the paper? I should much value your advice on this subject. Can I get a better paper than Scholzig's?—H. F. O.

4226. **Negatives Wanted.**—Would any amateur, having a few negatives of places of interest in Brussels, Namur, or on the River Meuse, lend the same for a few days for slide-making purposes? Also should like address of a firm of Belgian slide-makers.—LANTERN (address with Editor).

4227. **Queensland, Plates in.**—Will someone kindly inform me if dry-plates, bromide paper, etc., can be got in Queensland, and if prices are much higher than at home? Would it be better to adopt the wet process?—ROBERTSON.

4228. **Name Wanted.**—Can someone oblige me with name and address of the publisher of Carl Norman's photographic views? I do not find the name in my directory.—DANIEL WOOD.

4229. **Address Wanted.**—Can someone oblige me with the address of the manufacturers of lenses such as used in the so-called Demon detective camera?—U.S.A.

4230. **Plates.**—A beginner takes Burton's hand-book, "Modern Photography," as his standard, makes up his various solutions to formulas given therein. What make of plates (quarter) and sensitised paper would be most suitable? Landscape work is intended.—HOPEFUL.

4231. **Studio.**—Will some practical person kindly tell me the proper dimensions for a useful studio

and dark-room, and the probable cost of building same, and which way it should face to obtain the best light?—AMATEUR.

4232. **Toning Bath.**—I have a good toning bath, composed of 30 gr. tungstate soda, 1 gr. gold, 8 oz. water. I use it at first neutral. When I want to keep it, what quantity of hydrochloric acid ought I to put in, and how much carbonate of soda when I am going to use again?—BOURNEMOUTH.

4233. **Camera.**—Can you tell me whether a Lancaster's quarter-plate Instantograph is a suitable camera for a novice to start with, and if not, could you recommend any other at about the same price? I, of course, presume the instantaneous shutter is detachable.—BEGINNER.

4234. **Scratches on Burnishing Bar.**—Will some one kindly tell me why my burnishing bar is so liable to scratches? I lubricate my prints with Castile soap and spirits. Perhaps Mr. Leach will kindly oblige?—HALF-PLATE.

4235. **Walking-Stick Stand.**—Is there one made, not longer, when folded, than an ordinary walking stick, or about 3 ft.? Is it firm, and will it stand fair usage as a walking stick? What height is it when erected?—R. G. O.

## QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.

18th.—Nos. 4009, 4020, 4027.

25th.—Nos. 4036, 4045.

Aug. 8th.—Nos. 4061, 4066.

22nd.—Nos. 4089, 4090, 4096, 4100, 4104.

29th.—Nos. 4118, 4123, 4124, 4125.

Sept. 5th.—Nos. 4129, 4131, 4133, 4136, 4137, 4141, 4143.

12th.—Nos. 4149, 4150, 4151, 4152, 4153, 4154, 4157.

19th.—Nos. 4161, 4163, 4166, 4167, 4168, 4172, 4173, 4174, 4179, 4180.

23th.—Nos. 4186, 4191, 4192, 4193, 4195, 4196, 4197, 4198, 4203, 4204.

Oct. 3rd.—Nos. 4211, 4212, 4213, 4215, 4217, 4218, 4219, 4222.

## ANSWERS.

4205. **Thomas's Hydroquinone Developer.**—The following formula is issued by Thomas with the Fall Mall plates:—

Hydroquinone	...	...	160 gr.
Sod. sulphite	...	...	2 oz.
Acid citric	...	...	60 gr.
Ammon. brom.	...	...	20 "
Water, to ...	...	...	20 oz.

Carbonate potash	...	...	2 oz.
Carbon. sod. cryst.	...	...	2 "
Water, to ...	...	...	20 "

—THE TURTLE.

4205. **Thomas's Hydroquinone Developer.**—

Hydroquinone	...	...	160 grs.
Sulphite soda	...	...	2 oz.
Citric acid	...	...	60 gr.
Bromide potassium	...	...	40 "
Distilled water, to make	...	...	20 oz.

Sodium hydrate	...	...	160 gr.
Boiled or distilled water, to make...	...	...	20 oz.

Take equal parts of each to form the normal developer. If your exposure is doubtful, dilute the above with an equal quantity of water. If under-exposed, when all possible detail is brought out, immerse the plate in the normal developer until sufficient density is obtained. If over-exposed, add to the diluted developer 1 grain of carbonate of ammonia and 6 grains of bromide of potassium. If the weather is very hot, increase the bromide in solution A to 5 grains per ounce. On no account bring the plate into daylight until thoroughly fixed, or green fog will ensue, as found out by bitter experience.—W. A. J. CROKE.

**REVIEWS.**—The "Dictionary of Photography," by E. J. Wall second edition (Hazell, Watson, and Viney, Ltd., 2s. 6d.) This book has been brought up to date, and has had added fifty pages of matter. It is certainly the most complete work ever published. The formulæ are given in the usual form and in metrical weights and measures. The first edition was a great success, and the second one will be found even more serviceable.—"Modern Photography for Amateurs," by J. Eaton Fearn (L. Upcott Gill, ls.) A useful book for beginners, written in a style that they can understand, and replete with sound, practical advice.—"Photo-engraving, Photo-litho., etc." by W. T. Wilkinson (Hampton, Judd, and Co.) This is a practical hand-book, and should be in use by everyone who is interested in mechanical reproduction of photographs. Anyone studying the book carefully will have a sufficient guide to practically go to work in any of the branches which Mr. Wilkinson has so ably treated of.

4203. **Newman's Shutter.**—This shutter has no equal in the market. It works in the diaphragm slot, or, in case of an Iris diaphragm, behind the lens. It has practically no vibration, and can be used as a time shutter for prolonged as well as for scale exposures. For a quarter-plate lens it would cost £1 9s. It gives timed exposures from  $\frac{1}{100}$  of a second.—THE TURTLE.

4206. **Newman's Shutter.**—The great advantage of this shutter is that it is a diaphragm shutter, i.e., it works in the centre of the lens, and is out of the way. It is necessary always to give make of lens when ordering, also width and depth of aperture of diaphragm slot. Price, complete with pneumatic release quarter-plate, is 29s.—W. A. J. CROKE.

4206. **Newman's Shutter.**—The advantage of this shutter is that it acts where the lights cross, i.e., in the centre of the lens, consequently there is less cutting off in exposures, and it is thus practically more rapid. The price for half-plate and under is 29s. It can be obtained with a discount of 5 per cent., at Adams and Co., 81, Aldersgate Street, E.C.—EXPERIMENTA.

4207. **Rivot's Paper.**—Yes; this is a good, reliable paper, and gives good results with both the borax and acetate toner.—W. A. J. CROKE.

4207. **Rivot's Paper.**—This paper yields a somewhat curious tone, from which there is little deviation. It is also certainly not permanent, not nearly so permanent as the ordinary silver print, which does not say much for it.—THE TURTLE.

4207. **Rivot's Paper.**—Briefly, their own results are not good, so what could yours be?—EXPERIMENTA.

4208. **Changing Back.**—Though perhaps useful, it is difficult to make, and dark slides are really better, and with Tylar's in the market, it becomes cheaper to buy them.—EXPERIMENTA.

4209. **Blisters on Bromide Prints.**—Try a few drops of ammonia in the fixing bath, i.e., until it smells a little of this alkali.—EXPERIMENTA.

4209. **Blisters on Bromide Paper.**—I have never experienced this difficulty. For a general idea how to work bromide paper successfully, and with varied formulae, I advise you to get "Fallowfield's 1890 Annual," and read from pages 158 to 164.—W. A. J. CROKE.

4210. **Transparent Defects.**—It is generally best to spot them with a little red paint. Naturally when printed they will show white on print, but never mind it. Tone, fix, and wash and mount, and when dry mix up the colour to match tint, and apply.—EXPERIMENTA.

4214. **Carbon Printing.**—Various makers and dealers advertise this form of printing. Fallowfield, who does all other kinds of printing from amateurs' negatives, would doubtless undertake this. Write to him for estimate.—W. A. J. CROKE.

4216. **Developer.**—It depends on what you wish to copy. If black and white, use a photo-mechanical plate and hydroquinone (see answer to 4205). If a painting or a photograph, use an isochromatic plate and a developer such as Edwards's:—

Pyro	...	...	1 oz.
Citric acid	...	...	40 gr.
Water	...	...	7½ oz.
Potass. brom.	...	...	120 gr.
Ammonia	...	...	1 oz.
Water	...	...	7 "

These will keep well if well corked. To make developer, add one part of A to nineteen of water, and one of B to nineteen of water. To develop, begin with diluted A, and add diluted B as required.—THE TURTLE.

4218. **Developer.**—How can it possibly matter what developer you use for photographs that one copies of others? Any developer does, pyro and ammonia or hydroquinone. When you once get a good formula, stick to it. If you want further information look up last week's paper, and read my answer No. 4183.—W. A. J. CROKE.

4220. **Dark-Room Lamps.**—The cheapest lamp



that combines red and orange light is Tylar's folding lamp, which fits on to an ordinary candlestick, and costs 2s. 6d. Next to this comes Lancaster's Rubralux, a very excellent lamp, costing 7s. I can recommend "Difficilis" to try either of the above.—THE TURTLE.

4220. **Dark-Room Lamps.**—Certainly; any light or lamp will do, if securely covered by ruby chimney. A cheap and efficient one is a hock bottle, with the bottom taken off. Another dodge is get a cardboard box, paste two thicknesses of orange paper over a hole made in the side, and where the flame would come place a piece of tin; or go to Adams, 81, Aldersgate Street, E.C., and ask for Tylar's folding 1s. 3d. lamp, convertible, as you require.—EXPERIMENTIA.

4221. **Fixing and Clearing Solution.**—What is the use of keeping the above? You should never have dirty solutions about; they are generally useless, as all their strength has been used up, so what can be the use of keeping them? The cost of fixing and clearing solution is very small, being only hypo and alum respectively. You should always use a fresh solution for each batch of plates.—W. A. J. CROKE.

4221. **Fixing and Clearing Solutions.**—What the books say about alum and hypo keeping indefinitely is all nonsense. Alum will keep for a certain time, but hypo should never be kept more than two days, and it is better to use it quite fresh. If you do not, your prints will be utterly ruined by stains.—THE TURTLE.

4223. **Kendal.**—In and around Kendal a week can be profitably spent, if the weather is fine. Dark-room at the disposal of Editor of AM: PHOT: Kendal Mercury and Times, Westmoreland Gazette, and the Kendal and County News are all published on Fridays and Saturdays. Any member of the Kendal Society would, I am sure, be glad to give information.—O. E. G.

## EDITORIAL

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

G. W. B.—We should certainly think it might be used on such a day with success. We should not use a smaller stop than f/8 under the circumstances, and should prefer to use the full aperture.

PRINTER.—We fear you have not read your textbook carefully, or you would not ask "exactly how deep a print ought to be printed." The usual instruction, and a good one, is to print slightly darker than the print is intended to be when finished, to allow for the loss of tone in fixing.

RYAN T. ROBERTS.—We place the plates in the following order: 6, 4, 2, 1, 5, 3. The lens will turn out very good all-round work, and we constantly advise the purchase of it.

MRS. BENYON.—Write to the Secretary of the Photographic Society, 5A, Pall Mall East, S.W. Rules and entry form shall follow.

H. S.—For the money you name you should get a very good half-plate kit. The firm mentioned sell well-made apparatus.

A. M. M.—We have no knowledge of the practical working of the formula given for fixing solution, and should advise your taking hypo. Yes; the best of its kind.

R. M. W.—You will have a very useful camera in No. 1. The lens you mention is by a good maker, and will do all that you require.

CHESHIRE.—You would find it very useful, and should have no difficulty in using it.

E. W. MALE.—We will make a search for negatives and prints. They have been mislaid.

H. F. C.—The "Triplet." The other lens is a very good one, and useful for almost any work.

MUR.—No. 1: The lighting is badly chosen, and the sun was much too bright to secure a picture. The glistening of the sun upon the foliage has caused halation. No. 2 is better. The figure does not improve the picture, but you have secured good definition and depth. No. 3: The picture is very fair, but more care should have been taken. Note the branch out of focus on the right-hand side. The swirl of the water is well rendered. No. 4: A most uninteresting picture, badly put upon the plate. No. 5: Really, the lighting of this subject is dreadful. We cannot here give you a lesson upon light and shade; buy "Pictorial Effect" (Robinson). With thin negatives the greatest care is needed in printing. Never print in direct sunlight; do not be in a hurry. To secure correct density requires judgment, and can only be obtained by practice. Work one brand of plates, and stick to them. You will then soon discover when you have secured sufficient density. You can increase or

decrease density by intensification on the one hand, and reduction on the other. Send us up a batch of negatives, and we will try and help you.

NIKLE.—A neutral grey is the best for general use.

F. B. RICHARD.—On the 15th of the month. F. A. B.—Shall be sent in due course. Your remarks are very encouraging.

H. KILBURN.—Thank you; we have just found your original letter, and will note the matter in next issue of the Reporter.

CHARLES A. KOHN.—Syllabus noted in another column.

H. S. W. E.—(1) Yes; with specially constructed apparatus not of necessity. (2) No; it will only increase density. (3) Much better to make them up fresh each time. (4) Yes, with pleasure.

G. MURRAY WILSON.—We publish your letter. We know of no reason why the frilling should take place. Did you use the maker's formula?

E. R. PRINGLE.—Noted. Very pleased to hear from you at any time.

CHAS. W. COWPEN.—Very pleased to do as you wish.

## Monthly Competition.

No. 17.

### ENLARGEMENTS.

Title of Photograph.	Name of Sender.
A Rough Day ... ..	A. R. Dresser
Interested... ..	B. Norden
Fountains Abbey ... ..	J. Shaw
Parish Church, Dawlish ... ..	R. N. Brealey
Glydyr River ... ..	G. H. Healey
Cloisters of the Great Mosque of Sidi Okba at Kairwan, Tunisia ... ..	Dr. R. Atkins
H.M.S. Malabar... ..	E. J. Fielden
The Lonely Ocean ... ..	T. H. Faulks
Hermione... ..	Miss A. V. Abington Bayly
A Son of the Sea ... ..	J. W. Eadie
Isle of Wight Cottage... ..	M. C. Wood
Lake Windermere ... ..	J. S. Dargue
Hoping for Better Days Between the Dark and the Daylight ... ..	W. J. Farthing
Ploughing ... ..	W. H. Kitchen
In Tow ... ..	Major J. D. Lysaght
Schutt Island ... ..	F. de Paula
Rags and Bones, Come Awa'... ..	A. Mathison
Portcawl Breakwater ... ..	Wm. Booth
A Quiet Nook ... ..	T. Draper
Ye Olde Hutte ... ..	F. A. Shierwater
The First Quarrel ... ..	S. F. Clarke
On the Turin Valley Road ... ..	G. Sherriff
John Bull... ..	W. H. Norris
A Sketch in Monotone ... ..	E. F. Vulliamy
On the Bodmin Road ... ..	Rev. G. E. Hermon

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer," etc. — Special bar, gains. 220 AMATEUR PHOTOGRAPHERS, clean, sound—7s. 6d. the lot; Optimus 7 by 5 wide-angle symmetrical, new, 42s.; Hughes' Triplexicon lantern, 4 in. double condensers, two lenses, in tin travelling case, 27s. 6d.; lantern microscope, two powers, 15s. 6d.; two interchanging chromatopes, new, 4s. 6d. each; a lot of comic moving and slipping slides, 2s. 6d. per dozen.—Dalby Smith, St. Thomas Street, Weymouth.

**Backgrounds.**—Plain and scenic backgrounds, in good condition; approval.—H. Press, Broad Street, Bath.

Landscape backgrounds, 8 by 6, nearly new, flatted oil, cash 10s., absolute bargain; exchange hand-camera, 10 by 8, tripod, or violin.—W. Hare, Windsor Studio, Sutton, Surrey.

**Cameras, etc.**—Whole-plate camera, two double dark-slides, changing box for 12 plates, 9 by 7 Optimus, quarter-plate, three double dark-slides, rectilinear lens, enlarging lantern, books, dishes, bottles, frames, scales, mounts, lamps, etc., etc.; the lot £12, or sell part.—A. Neale, Oakfield, South Yardley, Birmingham.

Square reversing quarter-plate camera, four double backs, Optimus R.R., 5 by 4; £2 15s.; or exchange for good hand-camera. — Photo, 173, Hemingford Road, N.

Lancaster's 1888 half-plate Instantograph, four slides, lens, shutter, film and quarter-plate carriers, stand, canvas case; £3 free.—Whiteway, Amphion, Pary's Avenue, Bedford.

**Cameras, Lenses, etc.**—Underwood's quarter-plate Instanto camera, dark-slide, tripod, Euryscope lens, new; bargain, 42s. — H. Rowe, Wallbridge, Stroud, Glos.

Quarter Instantograph, two slides, Optimus R.R. lens, flap shutter, all splendid condition; 50s., or offers.—Moses, South Ford, Dartmouth.

**Ether Saturator.**—Ether saturator; cost 25s.; sell for 10s.; splendid results.—Pellatt, 81, Bishops-gate Street.

**Hand-Cameras, etc.**—Shew's Eclipse camera, quarter-plate, three double backs, instantaneous lens and shutter, view finder, front of camera slightly damaged, but working qualities not interfered with, new this year, cost nearly £28, price £3 15s.; Ross' rapid symmetrical lens, 8½ by 6½, new last March, perfect order, cost £6 10s., price £4 10s.; Ross' portable symmetrical lens, 8 by 5, 7 in. focus, new last June, perfect order, cost £5, price £3 15s.; approval; deposit; owner giving up photography. — Elwes, Barracks, Lichfield.

Fallowfield's Facile hand-camera for sale, R.R. lens, all latest improvements, quite new; £4 4s.—B. Davidson, 62, Manor Road, Brockley, S.E.

**Lenses.**—7 by 5 rapid rectilinear lens, as new; bargain, 21s. 6d.—J. George Street, Stroud.

8½ by 6½ landscape lens (by Grubb), No. 5017, good as new; 50s.—B. 165, High Street, Lewes.

**Lenses, etc.**—Half-plate portable symmetrical lens, 6 in. focus, Waterhouse diaphragms, and Dewey's pneumatic drop shutter, warranted perfect, nearly new; cost 49s.; bargain, 35s.; exchange for lens of wider angle. — Griffin, Binfield Terrace, Chingford.

Lancaster's half-plate Instantograph lens and shutter, Iris diaphragms, nearly new, 21s.; lantern objective wanted—309, Liverpool Road.

Wray's 10 by 8 view lens and stops, 35s.; Mayfield's 8 by 5 R.R., with stops, 30s.; Wray's 6½ by 5, Iris diaphragm, 45s.; pocket microscope, 15s.; half-plate camera, dark-slide, and portrait lens (by Cooke), 25s.; folding 10 by 8 camera, 20s.; or offers.—B. Ewen, Chiswick Nursery, W.

Optimus Euryscope, 9 by 7, cost £6 6s., good as new, price £4 15s.; Squire's extra-rapid cabinet lens, 3½ in. aperture, £4, perfect, with Waterhouse diaphragms; Darlot's No. 2 Universal combination, equal to new, cost £11 11s., price £7 10s.; Ross' 8½ by 6½ rapid symmetrical, £5; Grinstead shutter for same, 10s.; two Beck's Autograph R.R. lenses, accurately paired for stereoscopic work, cost £7 11s., price £5; Thornton-Pickard shutter for same, cost 25s., price 15s.; Lancaster's changing box, half-plate, price 20s.—Ather-ton, Market Street, Wigan.

Swift's 18 in. 10 by 8 long-focus landscape lens, Waterhouse diaphragms, in leather case, £3 15s.; Roush's alpenstock tripod, 15s.; both scarcely used.—Dr. Winter, Newlands House, Royal Street West, Sandown, I.W.

**Optical Lantern.**—Scarcely used, optical and enlarging lantern, for quarter and half-plate negatives, enamelled iron body, brass-fitted sliding front, double combination achromatic objective, two 6 in. plano-convex condensers in brass cell, quarter-plate camera front, rack adjustment, powerful four-wick Russian iron lamp, jointed chimney, in polished case, complete; £4 10s., or offers; cost £8 6s.—Shadler, 10, Bellefield Road, Brixton.

**Razors.**—Pair of splendid ivory deep hollow-ground razors, in flat leather case, new; sacrifice 10s.; cost double; approval. — No. 79, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.



# The AMATEUR PHOTOGRAPHER

Telephone No. 1645  
Telegraphic Address: VINEY, LONDON

Offices: 1, Gored Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 315.]

FRIDAY, OCTOBER 17, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

THE appeal made last week for instantaneous photographs taken in the "sixties" or before, has brought us four very interesting prints from negatives exposed in 1858. They have been sent by Mr. Fred. M. Young, who says—

"In reply to your request for the loan of instantaneous photographs prior to the year 1860, I have much pleasure in sending the enclosed specimens (very bad ones) which were taken by an acquaintance of mine in the year 1858. As stated in the headings, they are photographs taken on the instant of firing Mallet's 36 inch mortar, which (with its shells) is still to be found in the Royal Arsenal, Woolwich.

"The mortar is hidden by the smoke, and the track of the shell, which used to be visible, has very nearly disappeared. The gentleman who took these photographs was named Skaife (long since dead), and he used a stereo camera, which he called "Skaife's Patent" (see blue stamp on photographs). The lenses were specially made for him by the late Andrew Ross (*pere*), who in those days lived in Holborn Bars. Mr. Skaife was, I think, unquestionably the first person who ever took shots from the tops of omnibuses, and I remember his showing me a photograph of a horse in full trot coming down Constitution Hill. He used the usual wet process, with a simple honey preservative. He seems to have taken a good many of these instantaneous photographs by the numbers on the papers. I don't think I can give any further information on the subject, and only wish I had some better specimens—such as they are, they are at your service. Mr. Skaife seems to have simply passed these photographs through the hypo bath, hence their faded appearance."

We cannot at present say whether it will be possible to reproduce these early records of instantaneous work, but they are extremely valuable as showing how history repeats itself. We hope others who have these treasures of the past, will entrust them to us, in order to help us to illustrate Mr. W. J. Harrison's very excellent articles on "Instantaneous Photography."

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AN advertiser (one B. Ewen, of Chiswick), in the sale and exchange columns of the AMATEUR PHOTOGRAPHER has been traced to have offered for sale a Wray's lens, which he stole from Mr. Wray's shop on the 30th ult.

The evidence showed that on the afternoon of the 30th ult. the prisoner went to Mr. Wray's place of business, Laurel House, Highgate, and purchased some stops of him. There was a lens upon the counter, and when the prisoner left it was gone. In consequence of an advertisement in the AMATEUR PHOTOGRAPHER, Detective-Sergeant Masey went to the prisoner's home at Chiswick, and there saw the lens. He told him he should charge him with stealing it,

and he then admitted the offence. Council pleaded guilty, and said his client really had a mania for photography, and was a photographic enthusiast. The magistrate said because the prisoner was an enthusiast was no reason why he should be a thief, and sentenced him to be imprisoned for one month. We notice that this "enthusiast" offered the following goods—

Wray's 10 by 8 view lens, and stops.  
Mayfield's 8 by 5 R.R. lens, with stops.  
Wray's 6½ by 5 lens with Iris diaphragm.  
Pocket microscope.  
Half-plate camera, dark-slide, and portrait lens.  
Folding 10 by 8 camera."

It is possible that some of these goods were also stolen. Dealers and others may, through the publicity given above, be able to trace their goods, and relieve from suspicion those who are possibly in their service.

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"THE Present State of the Focus Question" is occupying the attention of many, and we cannot but think with our contributor, Mr. Alfred Maskell, that the time has come when the two schools should be divided and kept apart. Many can and doubtless do admire the works of Davison, Clark, Wilkinson, and others, but they are only produced by photography used as a means to an end, viz., the representation of a subject or landscape, to give the impression which the artist or operator considers to be necessary in *his opinion* to render truthfully the beauties of the scene before him. All must admit that the effects are truly wonderful, but all will not admit that such pictures should be entered in competition with the best and truest work of that exact and beautiful instrument—the photographic lens. We, therefore, hope that the Council of the Photographic Society of Great Britain will next year see their way to offer some inducement for the new school to enter their work in competition against each other. The Council should take care, whilst supporting the new school, that they do not discourage those workers who have succeeded in the past in placing photography on so high a pinnacle of usefulness—a usefulness, the loss of which would be but badly compensated by the work of the new school, and the examples of photography as a pictorial art which they can give us.

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We have just received from Mr. Wm. Hoskin a copy of the prospectus of the Photographic Exhibition to be held at



Ventnor. The exhibition will be opened on Monday, the 19th, and remain open until Saturday, the 24th of January, and the Committee will reserve to themselves the right to prolong the exhibition until the 31st. The conditions are framed under the now well-recognised conditions. We are pleased to notice (Clause 7) that "No picture which has won a prize at any open exhibition will be eligible for competition." There are seven classes open to professional photographers, in all of which silver and bronze medals are to be offered. In Class B, "Series of Three Landscapes," the medals will be given by the proprietors of the *Photographic Reporter*. There are eleven classes open to amateurs, and in Class O, "Instantaneous, Animals, etc.," the medals will be from the AMATEUR PHOTOGRAPHER. For "Ladies' Work" a water-colour painting will be offered as a prize by Mr. Charles Ryan. Colonel R. V. Malden offers a camera and kit for the best series exhibited by a *bona-fide* resident amateur in the Isle of Wight. We will send prospectuses to any one forwarding stamped addressed envelope.

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THE Leicester and Leicestershire Photographic Society will hold a conversazione on November 20th, and the Hon. Secretary, Mr. H. Pickering, will be very grateful for the loan of "old specimens or curiosities in photography." This society has been doing some excellent work, and those interested in photography, residing in or around Leicester, should support it by becoming members.

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FURTHER particulars of the Tunbridge Wells Exhibition will be published shortly. In the amateur classes the AMATEUR PHOTOGRAPHER Silver and Bronze medals (third year) are offered for competition, and in the professional classes, the proprietors of the *Photographic Reporter* have placed their medals at the disposal of the Council, who have accepted them. We understand that the judges are to be Sir David Salomons, Bart., Mr. H. P. Robinson, and Mr. Charles W. Hastings. The Hon. Secretary, Mr. Joseph Chamberlain, will be pleased to answer any questions, send prospectuses, etc.

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IN order to encourage photographic societies, we shall be pleased to place the AMATEUR PHOTOGRAPHER medals with ribbon and clasp at the disposal of committees for competition, under certain conditions, by members who are amateurs; and the *Photographic Reporter* medals, to be competed for by professional photographers only. Applications should be sent in at an early date.

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MR. A. G. TOWNSEND sends us a letter, which we publish in another column. In it he suggests a competition of novel features, viz., the sending out by us of lantern plates exposed upon a given subject, with the exposure noted. The plates to be sent to those willing to enter the competition, and to be developed by them with, say ferrous oxalate, pyro and ammonia, hydroquinone, eikonogen, etc. All the plates to be returned to us to be examined by an expert, reported upon, and a prize or prizes given by us. We shall be pleased to consider the matter, and in the meantime would ask those willing to enter such a competition to write us, in order that we may formulate a scheme that shall be workable.

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The *Review of Reviews* publishes in the October number two views taken by an amateur photographer, and a very interesting account of the apparatus that he used. The views are the "Interior of Church, Ober-Ammergau," and "Ettal Monastery." Mr. Stead is most persistent in his attention to the claims of photography as an aid to book illustration.

## Negatives and Positives.

THE Arts and Crafts Society are likely to do good work, for the next, if not for this generation. We understand that "the Society sprang into existence as a protest against the theory which greatly obtains at Burlington House, that the painted canvas is the highest expression of art, one to which all else must be subordinated, if not, indeed, the only one worth cultivating."

\* \* \* \*

MANY "good old souls" are under the impression that painters are the only people to whom the name artist can be applied. Slowly, very slowly, the term is being stretched so as to include other workers in the Fine Arts. Yet still there lingers in the minds of not a few photographers the notion that the great aim of the photographer should be, firstly, to make his work as little like a photograph as he can, and, secondly, to ape the results, if not the methods, of pictures produced by any process except photography. To such an one there is a remark for which his soul hungereth. It runs somewhat thus: "How very soft and artistic and full of tone! I should never have thought it was a photograph!"

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OVERHEARD at the Pall Mall:

*Elderly Party to Young and Charming Ditto*: "Yes, my dear, those pictures must have been taken with instantaneous collodion."

*Young and Charming Ditto*: "Really!"

*E. P.*: "Yes, instantaneous collodion. You just take the cap off—and then—put it on again as quickly as possible!"

*Y. and C. Party*: "Isn't it wonderful!"

Our impression is that the prints in question were from negatives on dry-plates, with shutter exposures of not more than one-twentieth of a second (probably much less), judging from the sharpness of the rapidly moving objects depicted.

\* \* \* \*

If you are a "professional beauty," a "lion comique," a "popular preacher," or a big gun of any sort, beware of the dulcet strains of Messrs. X. Y. and Co., who may press you for a sitting, send you proofs, and follow them up, presently and anon, by a little bill for photographs which you did not order. Upon your declining to pay the little bill you may find yourself dragged into court. At this point you will quote the case of *Alpha v. Omega*. Tableau: "His Honour gave a verdict for the defendant with costs."

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WE learn that the collection of pictures in the Royal Holloway College includes Long's "Babylonian Marriage Market;" the auction price (£6,615) of this work is quoted as "the highest auction price yet paid for the work of a living British artist." The matrimonial market still keeps up its reputation.

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THAT very much quoted and very often misapplied quotation, "Ars est celare artem" (the perfection of art is to conceal art), is attributed to Quintilian, a Roman, who was chiefly remarkable for his writings on the subject of rhetoric.

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To any one seeking notoriety let the following receipt be made known. Invent a hand (or so-called detective) camera—give it a "fancy" name—prowl round an Irish meeting (for preference, select one with the greatest chance of "heads and shillelachs"), take a few snap shots of M.P.s, hand in your results at the ensuing trial; finally, reap the gratitude of a down-trodden people, and cover yourself with glory! Try it.



It is reported that a studio for wood-carving classes is to be opened at King's College. The next generation will learn to apply the title of artist to a worker in wood, stone, metal, paint, or any other medium, according to the deserv- ing of the work produced, without stopping to ask, "Is it painted by hand, *real* paint and *real* canvas, by a *R(eal)* *A(rtist)*?"

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PERHAPS the following remark of C. N. Bovee ("Sum- maries of Thought, Art, and Artists") is not very far wide of the mark, "The art of a thing is, first its aim, and next its manner of accomplishment."

## Exhibitions.

### EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.—III.

WHEN one thinks of the enormous number of workers in the field of Photographic portraiture, it seems strange to have to record that, in this department, no trace of progress or develop- ment is visible.

The portrait photographer works, as a rule, to please the public taste, and having formed or inherited the idea that the demand is chiefly for a treatment which is clear, hard, metallic, and commonplace, he has taken no pains to guide or elevate that taste. In an exhibition of the importance of that now under review, one has a right to expect that the work should be alto- gether of a higher standard than that of the show-case of the studio, and that faults which may be inevitable and might be excusable in the hurried work of day-by-day practice ought not to exist in work sent to an exhibition like the present.

Nor can it be said that the portrait photographer has here to do with ordinary, uninteresting types of humanity. Distinguished men and beautiful women he has in abundance as subjects. There is a profusion of painters; ambassadors are thick as blackberries, and there is quite an extensive show of society beauties; yet, with such material at command, the results are but poor.

Of course, there is this to be said, that the photographer has rarely previous personal knowledge of his sitter, which the por- trait painter, manifestly to his advantage, frequently has, as it enables the latter to study and to endeavour to embody those natural touches of expression and attitude which are apt to vanish so utterly under the ordeal of sitting for one's portrait. Still, no excuse can be made for the utter want of thought and care in arrangement in many instances; and when even a medal- list, though not in the picture which gained him that distinction, gives us a portrait of a distinguished musician, violin in hand, with the violin cleft in twain, and the right hand deprived of the adequate number of fingers which alone would enable him to play, there can be but little wonder that another exhibi- tor gives us a lady holding a fan in such a position that only one finger out of the ten with which Nature has presumably endowed her is visible.

Mr. Ralph W. Robinson exhibits no fewer than twenty-nine portraits of artists, chiefly members of the Royal Academy, and which would, no doubt, be better appreciated when turned over singly in a portfolio than when seen clustered together on the walls of an exhibition. Here one feels a certain sense of mono- tony from the presence of pictures, palettes, easels, and adjuncts of the studio, which, appropriate enough in themselves, pall from repetition. Some of the likenesses are excellent, notably Mr. Orchardson and Mr. Gregory, while that of Sir Frederick Leigh- ton is by no means so successful. How artists differ in their idea of how to sit may be seen from comparing the portrait of Mr. John R. Reid (47) with that of Mr. Orchardson (49). Not for the sake of invidious comparison, but to prove the opening statement that but little trace of progress is visible in photo- graphic portraiture, we would recall to memory the series of artists' portraits, done (it must be nearly twenty-five years ago) by the late David Wilkie Wingfield, an "amateur photographer," and a show of which, say at the Camera Club, would be highly in- teresting, and go to prove that there were giants even in those early days.

Of the three "Studies" (12), by Mr. Walter R. Cassels, the

centre head is very beautiful and has refinement and delicacy of modelling. With this may be classed the various portrait studies (305, 409, 470, 471) of Mr. Henry Stevens, in which a certain tenderness and absence of hardness is noticeable.

In the portraiture of children generally, one observes a certain overstrain for the picturesque in which too frequently the simple charm of childhood is lost. Little limbs are bared for too evi- dent ostentatious display, and we have even an example of a little modern Moses in a basket, with bulrushes at a respectful distance growing out of the carpet! Mr. Robert Faulkner has a frame of "Studies from Nature" in which the children's heads are bright and natural in expression, which one can hardly say of "The Masters Pilkington" (222), by Mr. Ralph W. Robinson, from whose weary, depressed air one would think that their young brains were already at work on solving the problem of life being worth living. In contrast to this, we come further on to another portrait by Mr. Robinson, "Ruth, daughter of Ernest Clairington Esq." (342), which for natural, unaffected expression is charm- ing.

It is only when the display of limbs looks forced and unnatural that it is objectionable. How delightful a result may occasionally be obtained may be seen from the charming little semi-nude figure in the centre of Mr. E. Resta's "portraits of children" (259).

There seems to be a fashion at the moment for "At Home" portraits, taken at the sitters' own houses, but we fail to see that it has led to any increased naturalness of pose or harmony of surroundings.

The "Misses Hamilton" (429) is the best of a group of three portraits by Mr. W. Barry; the seated figure is easy and grace- ful, but the other is rather strained in position.

"Portraits" (464, 465), by Messrs. Window and Grove, have delicacy and refinement, which qualities also characterise "A Por- trait" (473), by Mr. J. E. Backhouse. An example of how not to do it is given in "Home Portraiture" (573), by Mr. H. S. Schultess Young, M.A., where the affected attitude and worship of the flower-pot are strangely at variance with the homely dress and surroundings.

From 588 to 595 we have a selection of society beauties by Mr. H. S. Mendelssohn. As in the case of the painters, there is a feeling of monotony in the treatment, and an affected air of pose rather than the natural grace and dignity which would have been the fit accompaniments of such exceptionally fine models.

In "A Composer at Home" (620), by Mr. W. J. Byrne, we have five pictures where the photographer, like the musician, seems to have been in search of an idea, but has not been quite successful in the pursuit.

Of these various groups of portraits, perhaps the most suc- cessful is "Panel Portraits" (651) by Mr. John Collier. He has been fortunate in his subjects and judicious in his treatment.

The different processes of Reproduction in which photography plays a part are so interesting in themselves, and the important bearing that they have on all that concerns the art of illustra- tion of the future, that it would have been advisable, perhaps, to have placed all the examples here together, and in a class by themselves.

Messrs. Boussod, Valadon, and Co. show several Goupilgravures after pictures by well-known artists, of which "The Heron's Retreat" (521) is the most interesting from the wonderful rendering of the spirited touch and handling of the original.

The "Reproductions in Copperplate" (525), by Mr. Walter R. Colls, from nature negatives by Dr. H. A. Roome, are very deli- cate and clear. The Autotype Company also contribute many specimens of their careful, excellent work, of which the most interesting in subject are the "Truth and Falsehood" and "Valour and Cowardice" groups from the Wellington Monu- ment.

Mr. Fred. Hollyer has long made a special study of the photo- graphy of pictures, and as good examples of his skilful work, may be noted "Lord Tennyson" (567), after the most recent portrait of the Poet Laureate, by G. F. Watts, R.A., and "Faith," after the picture by E. Burne Jones, A.R.A.

A number of carbon enlargements with dry-point needle finishing, are sent by Mr. Henry Flather, of which the portrait (535) has the soft look of a mezzotint after Reynolds, and, com- paring it with the original, which is also shown, it is a very successful production.

In concluding these notes on the Exhibition of the Photo- graphic Society of Great Britain, we would say that the lesson



to be learned from it is that excellence is not the proprietary right of any one school, be it the "foggy" or the "clear." There is a wide field and room enough for both; only let each worker be animated by the true spirit of striving after excellence, and let him ever remain keenly critical of and never content with his own work, sensitive to its defects, as well as to its beauties, as it has been abundantly shown that the presence of errors which were easily avoidable by the exercise of care and thought has marred much work that in many other respects is good and admirable.

## Letters to the Editor.

### "HANDS OFF!" ETC.

SIR,—Kindly allow me to point out some egregious errors in the little article entitled "Hands Off," in your last issue. First, there is the calm conceit in the boast of the writer that his feeble and inaccurate criticism is to be the *beginning* of a vigorous crusade against painting upon photographs. Surely the young gentleman must be well aware himself, that he has promptly pecksniffed the main idea of the criticism from the writings of others, and that his well-paid outburst is merely an unimportant indication of the influence which has been exerted by such men as Messrs. Gale, Emerson, and others, amongst whom, I think, I may include Mr. H. P. Robinson. Does "An Amateur" not know that many enlargements have been actually excluded from the Pall Mall Exhibition on account of painted doctoring, and that for the last three years certainly the question of such treatment has materially affected the deliberations of the judges over their awards? Others will, at any rate, understand that our self-satisfied critic is much behind-hand.

That such conceit should be accompanied by blindness and ignorance is not surprising. The article commences with a reference to the portrait (No. 357), and in this the writer finds "wonderful power and refined discrimination," which he ascribes to the paint on it! The verdict of every observer with any training will be that the painting and other handling here is a distinct element of weakness.

The next point started is the peculiar bit of art ethics that painting which covers a large space, and plainly shows on the photograph is less reprehensible than that which is difficult to find and limited to small areas. Such an absurd position can only be explained on the assumption that this gentleman is tingling to attack individuals rather than any vicious practice, and this personal motive also shows itself in certain offensive phrases, such as, "Those who consider themselves representative of current photography." I am driven to the conclusion that the writer's own "conscientious, painstaking, nature-breathing works" have either been hung high or low, as they doubtless deserved, or have been "passed over in favour of misty smudges" by the judges. Now, if there were any principle in his action he would have gone viciously for those half-and-half productions wherein the incongruity of paint and photography is so objectionably shown. These, however, he finds much excuse for, and, strange to say, works himself up over a class of landscapes in which the touching, where any at all exists, has been of the most limited kind, and is in no way essential to the picture. But for the sake of sensation, certainly not for truth's sake, he has seized on the medallists.

Now for a few facts to expose the blindness and unfairness of this gentleman. He has been good enough to give my own photographs prominence, and as he could not find any paint he harps on the string that they are not "the outcome of pure photography," and that "artistic doctoring" is done by "judicious toning down of high lights apparently with colour." (Note the *apparently*.) I am glad to be able to give a sweeping proof of either the stupidity or the disingenuousness of our critic. In the medalled picture, No. 55, there is nothing but pure photography either on print or negative. In No. 54 there is nothing but spotting for holes in the negative; and in the series Nos. 289 to 298, there is no toning down of high lights, judicious or otherwise, with colour or with anything else. They are all pure photography, hardly any local masking being used, and in one only is a mechanical defect of any size spotted out. In only two out of this ten is there even any cloud printing, the effect of sky, such as exists, being obtained by the required development and the quality of the printing method. Naturally under these

circumstances the writer had to resort to his imagination, and rely for his attack upon the unfair word *apparently*. About six other cases are cited, two only of these justly, and, strange to say, in these two noticeable cases our blind critic does not find the symptoms so evident. Further he says, Mr. Lyonel Clark's picture has been "lavishly" brushed. This is absolutely false. Intensification of certain shadows has certainly been effected by colour or gum water, and partly removed again as an error, but the application is extremely limited, and what is more, instead of conferring "the happiest effect," the unhappy incongruity of paint and photographic deposit more than overcomes any conventional brilliancy secured by the doctoring. The same applies to the other cases. The objection to the practice is that the effect always shows, and shows *inharmoniously*, and on such lines there was good scope for a critical article. But such a jumbled, indiscriminate, and prejudiced criticism as that of "An Amateur" can do no good, for it is based upon no principle.

The self-contradiction involved in placing the congratulations offered to Mr. Clark and others for the effect of their painting touches, together with such expressions as "degrading, obnoxious tricks," is the result of the writer having written without any insight or knowledge as to *why* painting a photograph to improve its tone is immoral.

Finally, I can see no reason why "An Amateur" should not have had the fairness to attach his name to his production. We should then know what claim he has for entering upon such a crusade, and be able to understand the envious, false, and self-contradictory imputations levelled against two exhibitors in such prejudiced and untrue expressions as "misty smudges made intelligible by the aid of the paint-pot."

Let us by all means strongly deprecate any so called artistic doctoring of photography by another and an incongruous medium, and hope for the time when negatives and printing processes can be so worked as to be free from defects requiring even the slightest spotting, but let us take care that ear is not given to ignorant assumption and personal animus.—Yours faithfully,

October 12th, 1890.

GEORGE DAVISON.

SIR,—"An Amateur" correspondent in your last issue, in criticising several of the medal photographs in the Exhibition of the Photographic Society, declares that the exhibits of Mr. G. Davison and Mr. Lyonel Clark and others are freely painted-in with the brush. These pictures have been greatly admired, but if their artistic qualities are largely due to the use of paint, it is certainly extraordinary that such experienced men as Captain Abney and Messrs. Blanchard, England, and Robinson did not observe it, for had the fact been noticed by the judges, they surely would not have awarded medals to these pictures. It may, however, be hoped, for the credit of the gentlemen concerned, that they are able to contradict the allegation of your correspondent. What is legitimate in the way of touching on negatives and prints has never been authoritatively defined, but what your correspondent describes as "lavish use of the brush" on the print certainly goes beyond what should be considered legitimate touching.—Yours faithfully,

October 13th, 1890.

ANOTHER AMATEUR.

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#### FERROUS OXALATE.

SIR,—I think your correspondent, "F. M. G." is to be congratulated upon possessing a gross or two of creditable negatives in his short career of ten months. I doubt whether any of your readers can say the same in so short a time from their first start, hence I assert "F. M. G." must have hit upon either correct exposure, or some method of tentative development with iron unknown to many of us. I think the majority of professionals and amateurs in the past have worked with pyro, "F. M. G." uses iron, and quinol is my friend of friends. I therefore cordially second the idea of "F. M. G.," and hope you will offer some incentive to settle the respective merits, if it is, indeed, possible to do so. Anyway it will be instructive and exceedingly interesting at this juncture of developing rivals to see what they will do under certain conditions, therefore I wish to modify my friend's proposal somewhat, and extend the usefulness of a good opening.

The basis of judging should be for a developer giving best results under doubtful and unknown exposures, as hundreds of persons like myself have only few opportunities of going out, and find what is thought right from common sense, minus exposure meters and tables, to be far from correct.



The basis settled, I would modify the number of fifty negatives, and formulate in its stead a workable and useful idea, viz., that you, Mr. Editor, issue six lantern-slides of six leading plate makers—two exposed correctly, two under, and two over exposed. Each set of six to be exposed the same set time, and same subject, so as to be a counterpart.

Each competitor will send 1s. to cover cost of plates and postage, etc.; nothing must be shown to indicate what the subject is, or what exposure given.

That the plates of merit be utilised for loan to societies, etc., which I think competitors will not begrudge.

That competition be open for a fortnight only, and to workers of not more than five years' standing (professionals excluded).

To make the competition still more interesting, a quarter-plate of exposed bromide paper might be issued with each batch.

The limit of twelve months would bar many, including myself, and I venture to believe that my first letter to you upon hydroquinone, and consistent recommendation ever since, has helped to make the popularity it enjoys to-day.

In the contest iron may reach the prize, but if the majority of plates came out best under quinol, I shall be satisfied to see "F. M. G." "take the cake."

My earnest desire is to encourage beginners with results that will surprise and not disappoint, rather than pit myself against skilful hands, who know their way about from constant practice.

Hoping you will see your way clear, from our combined suggestions, to try the novel and useful competition, although it will entail some considerable trouble, yours truly,

October 13th, 1890.

A. C. TOWNSEND.

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#### TONING BROMIDE PAPER.

SIR,—To attempt this is to put a good thing to a wrong use. Bromide paper was designed to give cold-grey and black tones, and all attempts to produce warmth will naturally result in failure, and a general staining of the paper, not an alteration in colour of image.

If Mr. Wain wishes a development paper which gives warm tones, he should try Alpha paper, which was introduced to meet the wants of those who desire prints of warm-brown and red colours.—I am, etc.,

JOHN HOWSON.

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#### NAMES ON LENSES.

SIR,—In your issue of last week I noticed an advertisement by Mr. F. G. Potter, Norwich, and attracted the attention of Mr. Henry Wiles (sculptor, of Cambridge) to it. He had the articles sent on approval, and brought them to me for inspection. The camera is by Watson, and bears their name plate just as one of my own of the same dimensions does; but the Ross lens, which in the advertisement is stated to have cost £4 4s. (note that this is within one shilling of the price of the Ross 5 by 4 rapid symmetrical) is a single-view lens, with fixed diaphragm, of not quite one inch diameter, inscribed "A. Ross London 5,727."

I have not a full catalogue of Ross and Co., but in the *News Almanack*, in their catalogue, the only single-view lenses I find are stereoscopic, and these one-and-a-half inch diameter, priced 30s. Of course it is quite possible that the advertiser does not understand the difference of construction and the value of lenses.

I have lately seen an old portrait lens, fixed diaphragm, offered for sale, marked "A. Ross," on the strength of which (the cap and pinion being gone) a high price was asked for the lens. Last week, however, in Answers to Correspondents the *Photographic News* contained the following paragraph:—

"P. A. Original Ross Lenses. If your lens has 'A. Ross' marked upon it there is a probability of its being spurious, for the late Andrew Ross put out a notice warning his friends that he used his surname only—'Ross, London'—to designate his own manufacture."

I would suggest, therefore, that you would confer a benefit on amateurs, and especially beginners, if you would ascertain and publish an authoritative statement of the way that lenses were marked by A. Ross, his son and successors in business.—Yours faithfully,

J. H. TAYLOR.

The following letter has been received from Messrs. Ross and Co., and which fully answers Mr. Taylor's communication.—ED : AM : PHOT :

SIR,—In reply to your inquiry of Saturday's date, we beg to say that the lenses made by Andrew Ross were engraved "A. Ross," but it would be impossible for us to say that any lens

bearing this inscription would be a genuine Ross lens without first examining it. The very earliest lenses bore an engraved stock number, but unfortunately we are not able to trace by our present books many of these, and it would therefore be necessary to actually see the lens before giving an opinion. All lenses that we turn out now are engraved distinctly "Ross, London," a description of the lens itself, and a stock number. On being informed of this number, we can trace if such a lens as may be described was issued under that number, and provided no alteration has been made to it since it left our hands, it would necessarily be genuine. A copy of our catalogue is sent you by this post, on page 11 of which you will find a notice regarding the engraving of lenses.—Yours truly,

ROSS AND CO.

(Per S. G. A.)

## The Present State of the Focus Question.

A REPLY TO MR. H. P. ROBINSON, BY ALFRED MASKELL.

MR. ROBINSON'S article in last week's issue of the *AMATEUR PHOTOGRAPHER* raises several questions to which replies would seem to be required. At any rate, the further ventilation of the matter will not be ill-timed at the present moment. Referring to the examples of diffusion of focus exhibited at Pall Mall, Mr. Robinson repeats a statement made by me that one frequently now hears it admiringly said of a photograph that "it is not a bit like a photograph." He observes that it is not true art to speak in such a way, and asks, "Are we ashamed of our art that we want to disguise it and make it like something else?" I answer unhesitatingly yes, so far as regards the application of the word art in its æsthetic sense to the kind of work to which we have long been accustomed under the name of photograph. During the years that have now elapsed since the discovery of photography, it has striven hard for admission into the circles of refined and elevated art, and Mr. Robinson must himself admit that it is still knocking at the door, and has, as yet, failed to secure an entrance. Quite recently a new method has arisen and is steadily growing in favour, and again it will be difficult not to admit that educated and refined artistic minds hail in it a new departure full of promise; something that is photography and yet artistic, principally because it is "not a bit like a photograph."

It would be impossible to speak of Mr. Robinson otherwise than with the highest respect due to the work of a life-time displayed both in his works and in his writings. Photographic art is too much indebted to him to speak lightly of his opinions, and one must feel that it would be difficult indeed to him to see any cause for change in the methods he has so successfully employed. Yet I would ask him to give his most serious attention to an awakening as regards photography, which is certainly due neither to the least thoughtful, the least educated, nor the least trained of photographic artists, and which is undoubtedly destined to have much more than an ephemeral effect upon the art in general; which is, in fact, I believe, to bring about that most needed revolution, viz., the distinction in photography between science and art, and between play and earnest—absolutely effected, but to the detriment of neither. And this will be to a great extent brought about by so changing the aspect of one side of photography that the new art will be "not a bit like a photograph."

An exhibition at present on view at the Camera Club of works by Mr. Lyddell Sawyer has considerable bearing on the subject. From Mr. Sawyer's introductory remarks in the *Camera Club Journal* it is evident that he is extremely well satisfied with himself, to say the least of it. He gives as a proof of the knowledge of art "with which he is



imbued" that he obtained thirty of the pictures shown by him in the short space of two months with the expenditure of less than four dozen plates. Well, one may be perhaps permitted to hint that a little more time and trouble might have produced superior results. Mr. Sawyer then proceeds to lay down the law with no uncertain sound, and it is well that he has done so. He characterises the production of landscapes as one of the lower forms of photography, and boldly declares that the highest eminence attainable is through the medium of that description of picture for which he avows his preference, viz. those (as he calls them) of the "Home, Sweet Home" class. He is, of course, entitled to his opinion, and has largely carried his theory into practice. With him, doubtless, the vast majority will go, but it would, I think, take a good deal of persuasion to induce the educated mind to accept productions of the "Father, come Home" description as a high form of art. That he himself can do better work is evident if we compare his "Smoky Tyne" to his "Art in the Family." The latter irresistibly reminds one of the subject of Hogarth's Distressed Poet or Musician. It is, perhaps, one of the four dozen above mentioned which were rather hastily worked off. The judges, however, at Pall Mall are evidently of Mr. Sawyer's opinion, and award a medal to his group of "Two's Company." Are we also to consider as examples of what we ought to imitate, pictures with punning titles, of which we find more than one, for instance, "Crewel (Cruel) Work"? I speak, however, seriously when I say that the class of work which Mr. Sawyer puts before us as the most worthy of imitation, is precisely that least calculated to elevate photography as a pictorial art. Other arguments of his on the subject of artistic focus are puerile in the extreme.

For the triumphs of pure photography exemplified in the magnificent topographical views of land and sea, in studies of animals and plants, scientifically considered from the natural-history point of view, in the beautiful results of photogravure and reproduction generally, in scientific applications of photography, and much else of the kind, I have no word of reproach. But where imagination, cultivation, and artistic appreciation of another kind are to have full play, let the line be drawn sharply and distinctly. Let the two schools be divided and kept apart; they have little in common. The appetite for the common-place may be catered for at one exhibition; at another gallery those who attempt to realise higher ideals may exhibit the result of their labour, and the admirers of each can visit or stand aloof as they please. For my own part, I have been indebted, and hope still to be indebted, for a large amount of pleasure, to many and varying descriptions of photography, but while a certain class of photograph may deserve admiration of a certain kind, I do not feel myself called upon to bestow upon it artistic appreciation, any more than when I visit a theatre and delight in the marvellous scenic illusion, do I frame my mind to consider such pictures with the same feelings which induce me reverently and humbly to study and endeavour to apprehend the inner meaning of masterpieces in art.

It is not to be understood that I confine myself in the opinions I have expressed to any system of diffused focus, or the reverse. I can equally admire Davison's "By Bradwell Creek," or Burchett's beautiful "Belle Bretonne." It is difficult to imagine for what unaccountable reason this picture is not only deemed unworthy of any award, but is even thrust below the line. Many will agree with me that it is a worthy pendant to the same artist's "Girl with a Violin," published, I think, by the Platino-type Company. Is it possible also to believe that Mr. H. P. Robinson was present as a judge when an award of a

medal was made to Van der Weyde's "An Invitation to Supper"? I cannot imagine it to have been seriously exhibited by that distinguished photographer as a work of art, and I fancy that none were more surprised than he that it was taken by the judges so to be.

It is not, however, the present position of the new school in photography which is of importance, but rather the possibilities and capabilities of this method in the future. It can scarcely be asserted that any great work has till now been produced, but the fringe of what remains to be done has hardly yet been touched upon. Land and sea, at home and abroad, great cities and splendid combinations of form and colour, contrasts of pure landscape, and the marvellous works of the hand of man, portraiture and figure studies; much more indeed remains to be translated and attempted before the words failure or success can be definitely pronounced. That there are great grounds for hope, and that the men will not be wanting, I feel wholly assured.

## Celerotype.

By WALTER E. WOODBURY.

CELEROTYPE is a name given to a most valuable addition to the gelatino-chloride printing processes. I say valuable addition because it possesses so many advantages over existing gelatino-chloride papers. First, it is manufactured in England, and this with all patriotic persons should in itself be an important consideration. In the present reign of foreign goods, it is quite a treat to find something which is "made in England." But, besides this, Celerotype undoubtedly possesses many advantages. First of all, it is more permanent than other papers of a like nature. It prints very rapidly, and gives remarkably brilliant images. Amateurs and others will find it a wonderful boon in the fast approaching dark days, as it is possible to obtain two prints in the time required to print one upon ordinary sensitised paper.

The paper is sold ready sensitised, and is manufactured by the Blackfriars Photographic and Sensitising Company, of Surrey Row, and sold in sheets and cut sizes. It has a very fine surface with an agreeable pink tint, and the paper is rather tough. I find it much tougher paper than any other kind, and much more convenient to handle.

With regard to the working of the paper, there is but little to be said. The operation is a very simple one and differing but slightly from other silver printing papers. In printing, the image should be somewhat darker than required for the finished picture, to allow for the usual loss in the subsequent operations.

The prints are first washed in two or three changes of water, and are then ready for toning. Almost any toning bath can be used, the tones varying with the different formulæ used, so that the operator can select for himself that bath which gives him the most pleasing results. Tastes vary so much with regard to colour, that it is impossible to give a bath that would give tones to please everyone. The Company recommend one of the following baths:—

### TUNGSTATE TONING BATH.

Sodium tungstate	..	..	..	1/4 oz.
Gold chloride	..	..	..	4 gr.
Water	..	..	..	20 oz.

### ACETATE TONING BATH.

Sol. 1.

Sodium acetate (re-crystallised)	..	..	..	3/4 oz.
Gold chloride	..	..	..	4 gr.
Water	..	..	..	20 oz.



## Sol. 2.

Ammonium sulpho-cyanide	..	..	100	gr.
Gold chloride	..	..	2	gr.
Water	..	..	8	oz.

Keep Nos. 1 and 2 separate. For toning, take in the proportion of twenty ounces of No. 1 to six ounces of No. 2.

I would advise amateurs to try these baths, and also any other bath they may prefer, but above all not to give in and condemn the paper because they do not happen to obtain the desired results the first time. This is a practice so many are guilty of. I have myself obtained some magnificent results with this paper, and I should like to see it obtain the success it certainly deserves.

After toning, the prints are fixed in a solution of hyposulphite of soda, two ounces to twenty of water.

Fifteen to twenty minutes will suffice to fix.

For the benefit of those amateurs who like as little trouble as possible, I will give the method of toning and fixing in one operation. The bath is made up with—

Water	..	..	24	oz.
Sodium hyposulphite	..	..	6	„
Ammonium sulpho-cyanide	..	..	1	„
Sodium acetate	..	..	1½	„
Alum (saturated solution)	..	..	10	„

Fill the bottle containing the solution with scraps of sensitive paper, spoilt prints, etc., which have not been fixed. Stand in the open-air for a day, and filter. Then add—

Ammonium chloride	..	..	30	gr.
Gold chloride	..	..	15	„

With this bath the three operations of washing, toning, and fixing are reduced to one. The prints are plunged into the solution without any previous washing, and are there allowed to remain until the required tone is obtained. They are then removed and well washed.

A simpler toning and fixing bath can be made by adding a few drops of a gold solution to the hypo bath. After a little while the prints are placed in it.

It is very doubtful if this method of toning and fixing should be recommended, as the permanency of the pictures is not likely to be so great as when separate solutions are used. Nevertheless, if permanency be an unimportant consideration, and time and trouble to be saved, the amateur may safely use it.

After removing from the fixing bath, the prints are well washed in several changes of water. One hour will suffice, provided the water is changed often and completely. After washing, the prints are laid in a saturated solution of alum for a few minutes, and again washed.

While in the washing water the glass to receive them must be prepared. This is done by first thoroughly cleaning the glass and rubbing it over with a little French chalk. With a tuft of cotton-wool rub the plate well over, removing all greasy or other marks; then, with a clean piece of the wool, the chalk is lightly dusted off until none is visible. The principal object is to get the glass thoroughly clean, and unless it is so failure will be the inevitable result. The only cause of the prints sticking to the glass is in the latter not having been perfectly clean. Lay the prints face downwards upon the glass, and with a squeegee gently press them into contact, and rest the plates on end to dry. When dry the prints will peel off with an enamel-like surface of extreme brilliancy. They may possibly require a little assistance. Gently raise one corner by inserting a knife between the print and the glass. Never attempt to remove the print until it is thoroughly dry. Instead of a glass plate, ebonite metal or ferrotype plates may be used; with these no French chalk is necessary.

We next come to the mounting of the prints. Here is where many fail with gelatino-chloride papers. With Celerotype, however, the paper will be found much thicker, and consequently the mounting solution does not penetrate the print so easily and destroy the gloss. The Company also sell a waterproof paper. This is cut a little smaller than the print, and easily pasted on to it when the pictures are attached to the glass. When dry, the print, with the waterproof paper attached to it, is removed, and can easily be mounted without the slightest loss of brilliancy. With the Celerotype mountant, prints can be successfully mounted either by applying the solution over the picture or to the edges only.

From experiments that I have made I believe this paper to be absolutely permanent in the adopted sense of the word. The reasons of this are, firstly, because the film lies on the surface of the paper, and all the soluble salts are easily removed; secondly, there is no free silver in the paper; and thirdly, the compound is a much more stable one than that extremely uncertain and variable one—albuminate of silver.

I would like some of my readers to give this paper a trial, and am certain they will be pleased with it if they be as successful as I have been. Its recent introduction has prevented me from making many experiments, but I hope at an early date to give the results of a number of different formulæ I am trying.

## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 239.)

THE presence of carbon dioxide in the air can be proved by exposing perfectly clear lime-water in a glass vessel to the air for some time. A white film gradually forms on the surface of the lime-water, and the white compound is calcium carbonate, formed by the action of carbon dioxide on the lime-water, just as in Experiment 31c. Nitrogen, oxygen, and water vapour have no effect on lime-water. Carbon dioxide is always present in the air, though only in small proportion. Many experiments, made in various localities, show that in the purer air of the country and over the sea the proportion of carbon dioxide is 3 in 10,000 by volume. In towns the proportion is 4 or 5 in 10,000, and over marshy districts, in closed places, and in ill-ventilated rooms it is much higher. It is found that in one and the same locality the quantity of carbon dioxide is slightly greater in winter than in summer, and at night than in the day-time. Fogs are frequently accompanied by a marked increase in the proportion of this gas.

Carbon dioxide is sent into the atmosphere chiefly from three sources: (1) It is exhaled from the earth, and the quantity derived from this source is several times greater than that from all the other sources put together; (2) it is formed by the combustion of coal, wood, and all other substances which contain carbon; and (3) it is formed in the respiration of animals.

EXPERIMENT 58.—Into a clear, dry bottle pour 50 c.c. of clear lime-water, and agitate briskly; observe that the lime-water is practically unaffected. Take a precisely similar bottle and hold it mouth downwards for a few minutes over a candle flame or a small gas flame. Remove the bottle, pour into it 50 c.c. of lime-water, and agitate; the lime-water will become very turbid, and this result proves that carbon dioxide is formed in the combustion of a candle or of coal-gas. The presence of carbon in the coal-gas or candle is proved by introducing a glass rod or other cold object



into the luminous part of the gas or candle flame, when the cold object will be covered with a deposit of black soot, which consists almost entirely of carbon. We have seen (Experiment 31 c) that carbon dioxide is formed by the direct union of carbon with oxygen, and we can therefore understand why carbon dioxide is formed when substances containing carbon burn in the air. The combustion of coal, wood, and all similar substances is, in fact, mainly determined by the union of the carbon which they contain with the oxygen of the air.

EXPERIMENT 59.—Fit a small bottle with a cork and two tubes, as shown in fig. 21, one of the tubes (A) ending just below the cork, whilst the other (B) passes nearly to the bottom

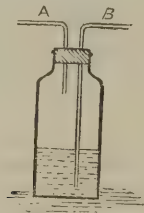


FIG. 21.

of the bottle. Half fill the bottle with lime-water, and by applying the lips (or attaching an aspirator) to the tube A, pull the air through the tube B and through the lime-water for some time; observe that the lime-water is practically unaffected. Now apply your lips to the tube B, and blow air from your lungs through the lime-water for a short time; observe that the lime-water now becomes very milky. It is evident, therefore, that carbon dioxide is produced in the process of breathing. The air before being taken into the lungs has only a slight action on lime-water, but after being sent out of the lungs it quickly turns the lime-water turbid.

Respiration is, in fact, chemically analogous to combustion. The oxygen of the air which we take into our lungs combines loosely with a constituent of the blood, and is carried through the arteries into various parts of the body. The loosely-held oxygen unites with the carbon of the tissues and juices of the body and forms carbon dioxide, which is given out when the blood returns to the lungs along the veins. Just as the rapid union of carbon with oxygen in ordinary combustion develops heat, so the slow union of the oxygen with the carbon of the body develops heat, and thus maintains what is commonly known as the animal heat.

We can now understand why the proportion of carbon dioxide in the air is higher in towns than over the sea, and is especially high in closed rooms where people are living, and fires, gas, candles, or lamps are burning.

Everyone is acquainted with the unpleasant effects which follow a stay in a crowded and badly-ventilated room, and it was for a long time believed that these evil results were due to the carbon dioxide which had accumulated in the room. There is no doubt that the reduction in the proportion of oxygen, owing to its partial conversion into carbon dioxide, is harmful, but we now know that carbon dioxide itself in small quantities has practically no deleterious effect, and that the most injurious substance is a form of volatile organic matter given off from the bodies of the people or other animals in the room. It has been found by direct experiment that the breath of animals contains an organic poison capable of producing serious and even fatal results. Volatile organic matter of a more or less harmful character is given off from all decaying animal or vegetable matter. It follows that volatile organic matter is present in all except the very purest air, though its amount varies greatly according to circumstances, and is sometimes very small.

The quantities of ammonia, nitrogen oxides, and ozone in the atmosphere are very small, and vary considerably in different localities and under different conditions. The sulphuric acid existing in the air in the form of vapour is derived almost entirely from the combustion of coal and coal-gas, both of which contain a small proportion of sulphur. When the coal or gas burns, the sulphur is converted into sulphur dioxide (Experiment 31 b), and this eventually becomes sulphuric acid. It follows that the proportion of sulphuric acid in the air is determined by the proximity of a town, or of a manufactory burning sulphurous coal in large quantity. The proportion of acid may also become very considerable in a room in which much gas is burnt, especially if the latter has not been properly purified, and to its presence is due the decay of book-bindings, the corrosion of metal work, etc.

EXPERIMENT 60.—Allow a small gas jet to burn under a large inclined beaker for some time, keeping the beaker cool, if necessary, with damp blotting paper placed on the outside. When a sufficient quantity of water has collected in drops on the inside of the beaker, test it with blue litmus paper, and in almost every case the blue litmus will be turned red, showing that the water contains an acid.

In towns, after a long period of dry weather, it is frequently observed that the rain which falls during the first part of a shower has a distinctly acid reaction, because the rain has washed down from the atmosphere the vapour of the sulphuric acid, which is very soluble in water.

(To be continued.)

## The Stereoscope.—XI.

By VALENTINE BLANCHARD.

If the preceding chapters have been carefully read, it will be found that enough has been said to show how to set about making stereoscopic negatives. It is hoped that the way has been well prepared, but of course there is no royal road to success, and therefore the patient plodder will win the race.

Now the negatives having been made and great taste exercised in their production, taste must come in once more to make the most of them in the printing and mounting operations. Before starting work, however, it would be well to pause and ask ourselves a question or two.

If there is to be a complete revival of the stereoscope, would it not be well at the outset to consider what improvements could be made both in the form of the instrument and the proportions of the slides to be used in it?

Would it not be better to consider some of the causes which probably led to its disuse, and try and avoid them in the new start? Is not the old dictum, that the distance of separation between the centres of the stereoscopic picture must not exceed  $2\frac{1}{2}$  inches, worth reconsideration? Would it not be possible to adopt some better method of mounting whereby the surface of the pictures would be better protected? We will try and answer the queries as we go along, and as we are about to print our negatives we will attack the dictum about the separation first, for on its truth or falsity will depend the proportion of our prints.

Here is an old stereoscopic slide properly mounted, for we have tested it in the "Holmes" stereoscope (which, by the way, will be described hereafter) and find perfect stereoscopic relief. The subject is an instantaneous view of Whitehall, taken in 1862. The subject is exactly three inches square. There is no space between the two pictures, but as there is slightly more subject on each outer edge, the centres are a



little nearer together than three inches; in other words, the distance from any striking object in the picture—say Nelson's Monument in the distance—to its twin in the other picture is less than three inches, and is, in fact, exactly  $2\frac{1}{2}$  inches. Now, if we want to utilise our quarter-plate pictures, we want more space than this, and if we use the  $7\frac{1}{2}$  by 5 in. negatives, still more separation will be necessary. The half of  $7\frac{1}{2}$  is  $3\frac{3}{4}$  instead of  $2\frac{1}{2}$ , so let us go in for extreme measures, and see if the stereoscope we are using will permit the increase of an inch over the orthodox amount. A pair of scissors will soon settle the question. Snip, and the slide is in two pieces. The margins are cut off, and the two pieces are supported on another slide for the experiment. The distance from object to object is just under 4 in. but will it stand the test in the stereoscope? Certainly it will! And what is more, the picture is more real—more like nature. The slide had to be pushed a little further from the eye-piece; that was all the difference made. So much for the old dictum. Well, this is most consoling, for not only can we put our two quarter-plates side by side without any trimming of the picture, unless necessary, but we can use the whole of our  $7\frac{1}{2}$  by 5 plate if we desire it, and have two well-proportioned pictures measuring 5 by  $3\frac{3}{4}$  in. What an admirable proportion for portraits or architectural subjects! Of course, a little must be allowed for trimming, but still we shall have a much more striking picture for our instrument than the old size of 3 in. square.

After this experiment, we may with confidence proceed with printing. We will start with the plates made by the quarter-plate camera, but before beginning work the amateur had better read carefully again what was written on page 151. It there states that No. 1 slide had better be used for the right-eye picture, and No. 2 for the left-eye picture; and so on, always in this order. We will therefore assume that this has been done, and the plates properly marked, so as to be able easily to identify them. Now if No. 1 is put to the left in the printing frame (which, of course, must be large enough to hold both plates side by side), and No. 2 to the right, they will be in proper position for printing without any necessity for the cutting the print afterwards. What has been written about the inversion of the image which takes place in the camera must not be forgotten, and then the reason for this transposition of the plates will be obvious. Attention must again be called to the importance of the perfect levelling of the camera. In arranging the two plates in the printing frame, carefully examine them to see if this has been properly done, and that the two plates exactly agree in the base line; for any error here will make perfect agreement in the stereoscope impossible. If all has been properly done as recommended, then the print, without any cutting, will give proper relief in the stereoscope.

The reader will here exclaim, "Yes, but the prints must have something done to them to make them presentable." Naturally. And here comes an answer to another of the queries, on the subject of mounting. We propose that a suitable cut-out mount of some dark colour be laid over the photograph. There cannot be a doubt that one of the causes that led to the disuse of the stereoscope was the rapidity with which the slides lost their first bloom and only, alas! too soon assumed the appearance of a well-thumbed, well-greased pack of playing cards. In the hand they were unsightly enough, but in the instrument every scratch from friction and ill-use was painfully magnified and sadly destroyed the illusion. The importance of protection to a drawing is well known, and no collector of water-colour sketches would dream of putting them in a portfolio without the protection afforded by the cut-out mount. Why not the same care for the stereoscopic slide? There

only needs the demand, and assorted sizes would be kept in stock by the photographic dealers.

The cut-out mount would also largely aid the illusion produced in the stereoscope, more especially if some very dark tint, or even black, were employed; for it would form a frame to the picture, and in the instrument the view would appear far away beyond its boundary.

By the employment of matt paper and printing very deeply, the paper print may be made into a transparency. The back of the mount would need to be gummed, and laid over the damp print. When dried under pressure the print would be as tight as a drum, and all that would be required to make it sufficiently transparent would be the application of white wax dissolved in turpentine until of the consistency of cream. This could easily be done by the aid of cotton wool on the wrong side of the picture, removing the superfluous wax with a fresh piece of wool or swansdown calico. Vaseline might be used, or Canada balsam dissolved in turpentine. This latter varnish would probably go slightly yellow with age, but for transparencies this would be a gain rather than otherwise.

Another important gain would result from the method of mounting now suggested. The prints would be more permanent in all cases where silver printing is employed; for it is now very generally admitted that three-fourths—indeed, it might be said nineteen-twentieths—of the fading occurs after the prints are mounted; and is due therefore to impurity in the mounts or some chemical action set up by contact of the print with the mounting material aided by the friendly action of damp.

The cut-out mounts need not be very thick, for of course the photograph would give extra strength, and in all cases where the picture was not employed as a transparency the back could be further protected by a stout piece of paper attached by the edge, but damped and applied at the same time as the photograph, so that all might dry together. This method is especially recommended to prevent fading, but of course the print might be mounted on thin cardboard as large as the cut-out mount to be employed. In this case there is no need for the mounts to be of cardboard, they might be similar to those employed for the lantern slides, and when pasted and neatly laid over they would be perfectly flat if dried under pressure. Even the thickness of paper employed for the lantern mounts would be sufficient to save the stereoscopic slides from the wear and tear inevitable under the old system of mounting. Surely this would be a step in the right direction!

## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

WINTER, with its long nights, is once more upon us, bringing golden opportunities for investigation and experiment in the theoretics of photography, and, recognising the fact that clubs are beginning again to hold their evening meetings, the more enthusiastic and energetic members are busy preparing papers on all the subjects interesting to amateurs and professionals alike. There can be no doubt that the result of the Exhibition of the Photographic Society of Great Britain will lead to the production of many papers on the "Focus Question," which seems likely to be as burning a one in photography as the Irish Question in politics, and, so far as can at present be judged, as likely to be settled to universal satisfaction. The judges of the Exhibition threw down the gauntlet, and the champions are already in the lists, and there will unquestionably be many hard knocks before the umpire steps in to stay the conflict. It is to be hoped, however, that the struggle will be conducted on fair and open lines, and that personalities will be left in the back-



ground, for it is matter of common knowledge that nothing tends more to confuse the issue at stake than the free and often unnecessary and injudicious lapse into personalities. The question is plainly one of method and not of persons, and if dealt with as it should be, on the broad ground of practice, the discussion may do much good and escape the fate which befell the acrimonious contest on "naturalistic photography." Discussions of the character of the last referred to, instead of elevating the art-science, which must be the desire of all true lovers of good pictures and good work, can only degrade it in the eyes of the world; and the arguments of those who dip their pens in gall will convince nobody.

The Camera Club, which held the first meeting of the session last week, was graced with the presence of its able and gallant President, who had promised to read a paper, and though he declined on that occasion to touch upon the question of Focus, on which he holds very strong views, he took his controversy with Messrs. Hurter and Driffield a stage further, and, so far as the opinion of his hearers went, clenched the question in his own favour with the most consummate skill. It will be remembered that the whole question refers to the measurement of the amount of light passing through a negative, and, therefore, effective on the paper behind it, and in the course of their experiments the two gentlemen referred to had been in the habit of using the grease-spot photometer, an instrument very well suited for measuring the direct and intenser light passing through a negative, but quite incapable of measuring the scattered, or one might call it the diffused, light. The latter is a variable quantity, which, as the reader pointed out, varies much with the composition of the negative, a gelatine negative giving more scattered or diffused light than a collodion negative. To give emphatic and visible proof of the latter, the gallant President put through the lantern a frame pierced with small holes, which were filled with (1) clear glass, (2) ground glass, (3) a negative. In the case of the first there was a bright centre and a slight diffusion round the image; in the second case it was all diffusion, and the light was spread much beyond the outline of the glass; and in the third case the effect was the same. On these points there could be no doubt; nor could there be much with respect to the statement that the grease-spot method would not measure effectively anything like the whole of the diffused or scattered light so shown.

Believing this to have been proved by his own experiments, which gave very different results to those of his two opponents, Captain Abney held that the grease-spot method was not an accurate one for measuring the amount of light passing through a negative and acting upon the sensitive surface underneath it. He then proceeded to show and explain his own photometer, a most ingenious instrument, and one which anybody could use with the greatest of ease. Its essential parts were a revolving metal disc pierced on opposite sides in such a way that while revolving, sectors could be moved and the openings made larger or smaller as desired. At one side of it, at any distance, a light was placed. On the other side, at a convenient distance, was erected a black screen, in the centre of which was placed a ferro-type plate, in the centre of which—somewhat above the level of the axis of the revolving disc—was pierced a hole about two inches long and three-quarters of an inch deep. This aperture was filled by a piece of translucent paper, at the further side of which was placed an opaque body covering half of it. A light was then placed at the other side of the screen, illuminating the half of the translucent paper which was left uncovered. The disc was then made to revolve at a good rate, so that the light passing through the sectors should not scintillate, either by a whirling table, or, as was the case then, by a small dynamo. The sectors were then opened or closed as necessary till the light on each half of the translucent paper was equalised, the disc stopped, and the angle made by the sectors read off, from which figure it was easy to calculate the amount of light coming from the other side of the screen and through the paper.

Having shown the action with the plain paper, the reader placed a negative at the further side of the screen, and in close contact with the paper, and then went through the process again, reading off the amount of light coming through the negative by means of the sectors. He affirmed that as the negative was in contact with the paper all the light passing through appeared on the paper, there being no room for diffusion, and claimed that if that were so, he absolutely measured the whole of the light passing through. That his audience was quite convinced of the strict

accuracy and justice of the claim was shown by the applause with which it was received, and, indeed, it was impossible for anyone to question the deductions he drew from the simple experiment performed before the Club. In fact, one gentleman, who knows something of physics, said the experiment was perfect, and as I have not the slightest doubt of his *bona fides*, I have not the remotest intention or desire to traverse the reader's claim.

Capt. Abney then proceeded to touch upon another question, perhaps even more important to the general run of amateurs—Is exposure equivalent to intensity of light? And here, after detailing the elaborate experiments and investigations he had conducted, he laid down the dictum that time and intensity of light were equivalent, and interchangeable so far as they had yet gone. He would not say that that was so for very short exposures, as, for instance, the ten-millionth part of a second, an exposure by no means impossible. Astronomers held that there was a certain amount of viscosity in the ether which would offer resistance to the energy of the light vibrations, and that, he thought, might check them so much that there would not be enough force in so short an exposure as to overcome the inertia of the atoms of the silver salt. When they used pin-holes they were very close to long exposures with small intensity. This point of viscosity of the ether was one of great importance to astronomers and to physical science, and it was a matter to which photographers might devote their attention with considerable benefit to both.

Replying to questions, Captain Abney said that for the purpose of measuring the light, it was not absolutely necessary to have the disc revolving, but it was convenient, and the revolutions increased the accuracy of the result by probably 30 per cent. In reply to a member, he said that the fact that the lights on either side of the screen were unequal did not matter in the least, his assistant having proved that by actual test. Paraffin lamps, which had been lighted for a quarter of an hour, were as good for the purpose as any other.

The Chairman (Mr. Francis Cobb), in thanking Captain Abney for his paper, announced that next week Mr. Lyonel Clark would read a paper on "More Notes on Platinum Toning."

On Thursday, October 23rd, Mr. E. J. Humphery will read a paper on "The Reproduction of Positives and Negatives." Meeting at 8.30 p.m.

## Science Notes.

THERE is an excellent article by Mr. Richard A. Gregory, on "Lunar Photography," in *Nature* for October 9th. Arago first suggested the idea of photographing our satellite, when he announced the discovery of Daguerre, in 1839. Daguerre himself, in France, and Dr. Draper in America, obtained "smudges" representing the moon, on daguerreotype plates in 1840; but the first good photographs were those by Bond and Whipple, at Harvard College, in 1850. Then came Warren de la Rue (1853), J. Phillips (1853), Hartnup (1854), Crookes (1854), S. Fry (1857), De La Rue again (1857-8), Rutherford, of New York (1866), H. Draper (1863), Brothers, Ellery, Gould, Common, etc.

With the great telescope of the Lick Observatory, direct photographs of the moon  $5\frac{1}{4}$  in. in diameter were obtained in 1889, and these will bear enlargement up to a diameter of 300 feet. In these, Professor Holden states that "parallel walls on the moon whose tops are no more than 200 yards or so in width, and which are not more than 1,000 or 1,200 yards apart, are plainly visible."

But it appears that photographs of the moon taken in Paris in March by those famous workers, the Brothers Henry, surpass all previous efforts. A secondary magnifier is used in the telescope by which the size of the image at the first focus is increased fifteen times. By means of these, and of the "Lick" photographs, the vexed question as to any change ever taking place in the lunar surface ought to be capable of being settled.

There is hope for lecturers who use the lantern for class demonstrations, etc. Mr. Cecil Carus-Wilson has invented a luminous crayon with which to write in lines of fire on the black-board, thus saving the trouble of having to turn up the gas when the lecturer wishes to use the board. Students, too, can use this crayon for taking notes on their tablets in the darkened room.

In the *Astronomical Journal* for September 16th, 1889, and for



19th September, 1890, Professor Holden first demonstrates mathematically that it ought to be possible to photograph stars in the daytime; and then states how he has accomplished the task. The exposure given with the great Lick telescope was 0.13 seconds upon "Seed" plates measuring 26 upon the sensimeter.

The *Athenæum* reviewer is *not* complimentary to photography. Writing in last week's number of Mr. Hare's new guide-books to France, he remarks, "Mr. Hare's sketches, especially of architectural detail, are well finished, and they are an agreeable relief after the lifeless photographs with which books of travel are nowadays illustrated!"

Capt. Abney and Mr. G. S. Edwards give an account in vol. 47 of the "Proceedings of the Royal Society" of their joint methods of experimenting into the "Effect of the spectrum on the haloid salts of silver." They show how to measure the relative sensitiveness of a photographic plate to the differently-coloured rays of light. They measure the density of the deposit of silver (produced by a given light) at any spot on a plate by allowing a beam from a constant source of light to pass through the plate, and then cast the shadow of a rod on a screen in such a manner that it falls exactly alongside another shadow of the same rod, cast by a second constant lamp. The intensity of the beam which has passed through the plate is reduced by varying the size of sections cut out of a rotating disc placed in its path, until the two shadows are of the same degree of darkness. From the time of exposure of the different parts of the plate, and the opening of the sectors, the relative sensitiveness can be calculated. Collodion and gelatine plates, of the different silver haloids, both separate and mixed, were examined, and the results are given in numerous tables and curves. Plates dyed with cyanin and with erythrosin were also investigated.

I have recently tried the following method of intensification with excellent results. It is not "new," but it possesses the greater advantage of being "true." Supposing the negative to have been thoroughly well washed and dried, soak it in a solution of mercuric chloride (120 grains), ammonium chloroide (60 grains), water (12 ounces). When the film has become white—which it ought to do in five minutes—remove the plate, and wash it well for ten minutes. Then immerse it in a solution of silver cyanide made up as follows: Dissolve 120 grains of silver nitrate in 10 ounces of distilled water; and add to it, drop by drop, a strong solution of potassium cyanide (remember that this is a deadly poison), until the white precipitate formed is nearly but not quite dissolved; the solution ought then to look opalescent, or just as if a drop or two of milk had been added to the water. Soak the bleached negative in this until it is quite black, as seen by looking at the back. Then wash for an hour and dry. Some thin over-exposed negatives which I have just treated in this way now look as if they had had exactly the right exposure.

F. G. S.

## Notes from the Liverpool Centre.

(By our District Editor.)

OUR local Press here have received Mr. Paul Lange's "Three Weeks under the Midnight Sun" with flattering praise and cordiality. The pictures and letterpress are alike commented upon with marked unanimity, and the general style and finish of the work as a whole, according to some of the papers, could not be surpassed. I hear that a large local circulation for the book is already assured. Local booksellers had inquiries for the work last week.

While touching on Mr. Lange and Norway, I may say that "the two" are showing up at the Liverpool Central Y. M. C. A., Mount Pleasant, this week. A few days hence, Mr. Lange and Mr. John Hargreaves, the latter gentleman an erudite local historian with a Mark Twain humour, give "The Hundred of Wirral," at Litherland, a flourishing suburban district three or four miles from our city.

Mrs. Waugh, widow of Edwin Waugh, the widely-known and sweet homely poet of Lancashire, has sent Mr. Lange a treble engraving, illustrating her late husband's "Come Whoam to thy Children and Me." The souvenir is in grateful recognition of the very excellent portraits of the deceased poet which Mr. Lange took a few months ago. By the way, Mr. Lange's twenty-four lantern slides of the Channel Fleet are spoken of in the highest terms. I am told that Mr. Lange is the only worker who secured a complete set of the squadron.

Next month a photographic competition in connection with the Y. M. C. A. bazaar is to be held. The conditions are:—

- (1) All competitors must be amateurs, and the pictures must be taken in Cheshire or Lancashire.
- (2) Pictures may be any size or by any process.
- (3) Photographs must be the entire work of the competitors.
- (4) Photographs to be mounted, and the name of the subject written on mount; also *nom de plume* of the competitor to be enclosed with his or her name in sealed envelope.
- (5) All photographs to be sent to Mr. Charles J. Procter, Birkenhead, between October 15th and 30th.
- (6) The photographs sent in to become the property of the Y. M. C. A., for disposal at the bazaar.

The prizes are for the best set of six photographs, either landscape, seascape, or instantaneous — first prize, silver medal, value one guinea; second prize, bronze medal, value fifteen shillings. An extra prize of a silver medal, value one guinea, is to be awarded for the best single picture of any one of the above class. There will also be three special prizes for competitors under twenty years of age, for the best set of six photographs as in the general competition—first prize, ten shillings; second prize, five shillings. Extra prize of ten shillings for the best single picture in any of the classes mentioned.

The judges are Messrs. Paul Lange, Henry Lupton, T. S. Mayne, and Edward Whalley.

The fortnightly practical demonstrations for the season were inaugurated at the Liverpool Rooms, on Wednesday night this week. Mr. J. A. Sinclair, one of our best and most practical workers, was down for the first lecture, "Lantern Slide Making." Mr. G. E. Thompson follows with a dissertation on the same subject, treating of chloride plates, toning, etc. Subsequently, Mr. Nott follows with the "Wet-Collodion Process;" Mr. W. P. Christian with "Toning;" and the President with the "Printing in of Clouds." The first month or two of the new session will, therefore, be taken up with an exhaustive study of lantern-slide making in several important places.

Dr. Kohn, who delivered the first of the series of ten lectures on "Photographic Chemistry" at the Liverpool University College last Tuesday, is likely to have crowded and appreciative audiences during the whole course.

Since my last notes Mr. Lamond Howie, of Manchester, has attended a coffee meeting of the Liverpool Society, where he showed views taken at Ober-Ammergau, in the Bavarian Tyrol, and at Nuremberg. The pictures gave considerable delight to the large number of gentlemen assembled.

Arrangements and conditions both for the Liverpool and Birkenhead Societies' annual winter competitions are pretty far advanced.

I understand that the judges have been chosen for the 1891 Exhibition here. But of this matter I hope to give all information to date next week.

## Societies' Meetings.

**NOTE.**—In this column the Editor can, of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BRECHIN AM: PHOT: ASSOC.**—The annual meeting of the Brechin Amateur Photographic Association was held on the 7th inst. Dr. Anderson, Vice-President, occupied the chair. The Secretary read the President's address to the members, in the course of which Mr. Adamson offered five prizes for landscape instantaneous work, portraiture, enlargements, and transparencies, all the work to be given in by 31st October. The reports of the Secretary, Treasurer, and Curator were read and adopted. The Treasurer's report was considered very satisfactory. Office-bearers for the ensuing year were elected as follows:—President, Mr. W. Shaw Adamson; Vice-Presidents, Mr. George Mackie and Bailie Lawrence; Secretary, Mr. James D. Ross, 6, High Street, Brechin; Treasurer, Mr. William Stewart, junr.; Curator, Mr. J. C. Middleton; Committee—Messrs. A. Brown, H. Braid, and William Dakers. On the motion of Mr. Duncan, Edzell, it was agreed to hold the meetings on Tuesdays instead of Wednesdays.



**BRIXTON AND OLAPHAM CAMERA CLUB.**—The winter session was opened at Gresham Hall, Brixton, on the 9th inst., when Mr. Andrew Pringle delivered an address on "Success in Photography." The chair was occupied by Mr. A. R. Dresser, and there was a very fair attendance. During the evening a framed portrait of the President, as issued with the *Photographic Reporter* for this month, was handed round for the inspection of the members. The next meeting (on October 23rd) will be a lantern evening, when members are requested to bring slides for trial.

**CROYDON CAMERA CLUB.**—The winter session was successfully inaugurated on the 9th inst., the President, Mr. H. Maclean, F.G.S., in the chair. A letter from Mr. De Clercq was read, in which the latter tendered his resignation of the Honorary Secretaryship, on account of business engagements. The resignation was accepted, and a cordial vote of thanks to Mr. De Clercq for his "efforts on behalf of the club," adopted *nem. con.* On the motion of the President, the members unanimously elected Mr. G. R. White, 55, Albert Road, to the vacant office of Honorary Secretary. In the course of a short address, the President referred to the work accomplished during the summer, especially in connection with the numerous and interesting excursions which were held on Saturdays, and proceeded to explain such arrangements for the winter as had already been made by the executive. The club will be open every night during winter at 7.30. Every Wednesday a conversational meeting will be held at 8 o'clock. The Council meets every Tuesday at 8. Special meetings for demonstrations, papers, exhibitions, etc., fortnightly. The next one will be on 24th October, when Mr. Underhill will give a lantern-show, at the club-room, 96, George Street. Members are invited to bring slides. It was announced that Mr. C. W. Hastings had promised to hold a lantern exhibition on 11th December, when an extra special meeting will be held at the Public Hall. The President also announced that Mr. C. Hussey has kindly offered to give a demonstration on the subject of lantern slides; the date of this has not yet been fixed. The result of the competition for the prize given by the President for a "View on the Wandle" was published, the winner being Mr. Ernest Neeves; the picture being a scene near Beddington. In all, nineteen prints were sent in; those by Messrs. Maxey, Blow, Isaac, and White being only one mark below the prize picture. The President then proceeded to introduce the subject of "Instantaneous Photography." The lateness of the hour prevented the holding of a discussion, which had been contemplated, and the meeting resolved itself into a committee of inspection of the AMATEUR PHOTOGRAPHER Monthly Competition, No. 16, "Instantaneous Photography."

**DARLINGTON PHOT: SOC:—**The ordinary monthly meeting of this society was held on the 13th inst. Mr. E. Ensor presided. A paper by Mr. W. McLeish, on "Composition in Photography," was read by Mr. H. W. Hollis. It was decided to hold the members' annual exhibition in February, with the addition of a class open to all amateurs.

**HACKNEY PHOT: SOC:—**A private auction was held on the 9th inst., under the directorship of Mr. Henry J. Beasley, a member. The idea was that many amateurs bought apparatus which was found useless to them, but might not be so to others. The Fry Manufacturing Company sent samples of their various specialities, which were duly distributed, the members being requested to report the result of the trial. Messrs. Mawson and Swan also sent copies of "How to Make Lantern Slides" and "Enlargements."

**HARLESDEAN AND WILLESDEAN PHOT: SOC:—**A meeting was held on the 7th inst. Mr. Naylor (President) was in the chair, and briefly introduced Mr. Walter D. Welford, of Birmingham, sub-editor of *Photography*, who proceeded to give a lecture on "Detective Camera Work." Mr. Welford showed a number of views which he had taken with his hand-camera, and at the conclusion of the lecture, work done by the members of the society was shown.

**HOLBORN CAMERA CLUB.**—The ordinary meeting was held on the 10th inst., Mr. E. Bayston in the chair. One of Messrs. Adams and Co.'s new "Presto" hand-cameras was laid on the table for inspection. Messrs. T. O. Phillips and H. T. Culliford having been proposed as new members, Mr. Edward Dunmore read a paper on "Odds and Ends of Photographic Practice," in which he urged all amateurs to cultivate their artistic knowledge, and makers of lenses to adopt a standard set of stops. With regard to exposure, he recommended amateurs to train themselves to estimate the proper exposure by the appearance of the image on

the ground glass. He thought a drop shutter the best for all kinds of instantaneous work. He gave a few hints with regard to the apparatus, and recommended pyro-ammonia for developing. After giving a few formulæ for intensifying and reducing, he went on to speak about toning the prints, and finished by recommending fresh starch paste for mounting. Some discussion followed on the question of supplementary exposure, printing under green glass, etc., and the meeting closed with a hearty vote of thanks to Mr. Dunmore. On Saturday, permission having been obtained to photograph within the Temple, fifteen members exposed a large number of plates on the various subjects within the precincts of the Temple. The evening was concluded by a smoking concert. Prizes are to be given for the best set of four pictures taken at the club official outings. They will be divided into two classes—half-plate and over, and under half-plate. Prints to be mounted, but not framed, and sent in by October 31st.

**HULL AM: PHOT: SOC:—**A meeting of this Society was held on the 9th inst. The chair was occupied by the President, Mr. Amos. Dr. E. H. Howlett (Secretary) said that there had been an increase in the membership, and they had now eighty-seven on the register. The scheme for photographing Hull had progressed slowly. A few members had sent in their work, but there were still many who had to complete the work allotted to them. Dr. Howlett was elected President in the place of Mr. Amos; Mr. C. D. Holmes, Vice-President; Mr. T. W. Sissons, Treasurer; and Mr. A. M. Jameson and Mr. C. O. F. Saner, Secretaries. Twelve members of council having been elected, the meeting terminated.

**KENDAL LIT: AND SCI: INST: (PHOT: SECTION).**—The monthly meeting was held on the 8th inst., Mr. Frank Wilson, J.P., in the chair. The Monthly Competition, No. 16, "Instantaneous, Animals," etc., were on view, through the kindness of the Editor of the AMATEUR PHOTOGRAPHER. Many of the pictures were much admired. Mr. C. P. Hale read a paper on "Gelatin-Chloride Emulsion Paper." After dealing with the superiority of this over the ordinary silver paper, a detailed account of the method of using, and the different formulas for toning, was given. A large number of very beautiful specimens had been kindly sent by Mr. Gotz, to whom Mr. Hale expressed his many thanks.

**LEICESTER AND LEICESTERSHIRE PHOT: SOC:—**A meeting of the above society was held in the Mayor's Parlour, Old Town Hall, on the 8th inst., Mr. J. T. Cook in the chair. Two members were proposed for ballot at the next meeting, and on the proposition of Mr. Pierpoint, seconded by Mr. Bankart, Mr. Jas. Jones, Hoo Ash, Ravenstone, was unanimously elected an honorary member of the society. It was resolved that a conversation be held in the Co-operative Hall on Wednesday, Nov. 26. Mr. F. Pierpoint gave a demonstration on the "Platinotype Process," which was closely followed, and proved most interesting.

**LEWES PHOT: SOC:—**An ordinary meeting was held on the 7th inst. The evening was devoted to a lantern exhibition by the aid of the Society's new lantern, which was used for the first time. The slides shown were mostly local views, many of which had been taken in a hand-camera.

**LOUGHBORO' LIT: AND SCI: SOC: (PHOT: SEC: )**—The first indoor meeting was held on the 8th inst., and took the form of a conversation, the walls of the room being decorated by prints and enlargements made by the members. A number of lantern slides were shown, and Mr. W. T. Tucker gave an account of his experiments in "Colouring Slides by Chemical Means."

**NORTH KENT AM: PHOT: SOC:—**A meeting of this Society was held on the 9th inst., Mr. J. C. Johnson, J.P., President, in the chair. There was no paper for the evening, but a pleasant time was spent inspecting the results of the late excursion. "Souvenirs of Washington," illustrating the capabilities of the Kodak, had been sent by the Eastman Company.

**PHOT: SOC: OF IRELAND.**—The first meeting for the session of this society was held on the 10th inst. After the members and visitors present had partaken of tea and coffee, the chair was taken by J. A. Scott (Vice-President), who expressed his regret that the President, Mr. Geo. Mansfield, was unable to be present, owing to a family bereavement, to deliver the address as announced, but that Mr. Greenwood Pim had undertaken to fill the gap. Mr. Greenwood Pim then addressed the meeting. The meeting was brought to a successful termination by the exhibition of a number of the society's lantern slides, the work of the older members of the society, most of them having been taken on wet plates and in the early days of the gelatine dry-plate.



**ROTHERHAM AM: PHOT: SOC:—**The first annual meeting of the members of the Rotherham Amateur Photographic Society was held on the 6th inst., Dr. Baldwin (President) in the chair. Mr. W. Haywood Smith (Hon. Secretary) presented the report of the year's working. Commencing with nineteen members, the number had been increased to twenty-seven—a very satisfactory growth. There had been eleven ordinary monthly meetings (with an average attendance of nearly fifteen), five excursions, and one lantern exhibition night. With regard to the finances, there was a small balance in hand after the payment of all expenses. The financial statement was presented by Mr. J. Leadbeater, Treasurer. Officers for the year were appointed as follows:—President, Dr. Baldwin; Vice-presidents, Mr. W. H. Haywood, Mr. T. P. Hewitt, and Mr. E. I. Hubbard; Treasurer, Mr. J. Leadbeater; Hon. Secretary, Mr. W. H. Smith. At the conclusion of the business Mr. Leadbeater gave a demonstration of the working of the Alpha paper. Four new members were elected.

**SHEFFIELD PHOT: SOC:—**The annual meeting of the above Society was held at the Masonic Hall, Surrey Street, on the 7th inst., Mr. B. J. Taylor in the chair. The Treasurer presented his statement of accounts for the year, showing a good balance in hand. The Secretary read his general report of the proceedings for the year, showing that thirteen meetings had been held, including one special meeting; numerous papers and demonstrations had been presented, and had in no small degree tended to pleasant and profitable meetings. Some good work had been done by the members, several having gained prizes at the photographic exhibitions in different parts of the country (notably Mr. Ernest Beck), and the Society altogether was in a flourishing condition. He announced that the annual dinner would be held on the 30th inst. The following officers were elected for the ensuing year: Mr. B. J. Taylor was unanimously elected President for the second time. Vice-Presidents, Mr. A. Davy and Mr. G. Bromley; Council: Messrs. A. Reynolds, A. J. Brown, T. Furniss, Thos. Firth, and Spencer; Secretary: Mr. Ernest Beck; Treasurer, Mr. Bradley Nowill; Reporter, Mr. E. H. Pearce. The President's prizes are again offered for competition; the subject is left open to the taste of each individual competitor, so that prints, any subject or size, may be entered. After votes of thanks to the retiring officers, the meeting terminated.

**STAFF. POTTERIES AM: PHOT: SOC:—**The monthly meeting of the Staffordshire Potteries Amateur Photographic Society was held at the Town Hall, Burslem, on the 7th inst. The chair was occupied by the President, Mr. R. S. Burgess. Messrs. E. J. Stonier (Hanley), H. Leech (Stoke), and John Wade (Burslem) were elected members. A paper was read by Mr. F. C. Powell, entitled "Lantern Slides, and How to Make Them." The lecturer afterwards passed through the lantern a quantity of slides he had made. Mr. Wain also showed a number of slides. The Secretaries reported that the next meeting would be a lantern night, when the members' slides would be shown through the lantern.

**STOCKPORT PHOT: SOC:—**The monthly meeting was held on the 8th inst., Mr. G. Hilderley in the chair. After the election of members, it was intended to have a lantern exhibition, Mr. W. I. Chadwick, of Manchester, having promised to show and exhibit with the "Chadwick" optical lantern. Unfortunately, Mr. Chadwick was compelled to telegraph stating his inability to be present, and the disappointment had to be got over by spending the evening in general conversation. The Fry Manufacturing Company sent several sample packets of their various high-class productions in the shape of plates, films, bromide paper, opals, etc., which were distributed to the members present. Several pamphlets of Messrs. Mawson and Swan were also handed round.

**TORQUAY PHOT: ASSOC:—**Mr. T. Willoughby presided over a meeting of this newly-formed association, on the 7th inst., when the following officers were elected:—Mr. E. Vivian, M.A., J.P., President; Mr. A. Hunt, M.A., Vice-President; Mr. G. Edwards, Hon. Secretary; Mr. H. C. Howell, Hon. Treasurer; Messrs. T. Willoughby, W. A. Dixon, W. M. Baynes, J. C. Dinham, and R. C. Reed, Committee. Rules were adopted, the subscription being fixed at 5s., with an entrance fee of 2s. 6d., which will, however, not be imposed on the first fifty subscribers. Already a number of amateurs and professionals have intimated their intention of joining the association.

**WEST LOND: PHOT SOC:—**The annual general meeting took place on the 10th inst. at the Lecture Hall, Broadway, Hammersmith, Mr. C. Bilton (President) in the chair. The annual report was read and adopted. The following resolution, moved by Dr. Low, seconded by Mr. Hazeon—"That all subscriptions become payable on the 1st October; old members whose subscriptions are paid to the 1st January, to pay three-fourths of the full annual amount"—was carried. Further revisions in the rules having been made, the election of officers was proceeded with. The President stated that he was glad to inform the meeting that Mr. Blackmore had been nominated for the office of President, whereupon Mr. Blackmore replied that though sensible of the honour conferred upon him, yet, owing to the many demands upon his time, he felt it quite impossible to accept the office, feeling that it was the duty of a president to devote all possible time and energy to the affairs of the Society. The hour being late, it was decided to adjourn the meeting to Friday, the 17th October.

**WORCESTER AM: PHOT: SOC:—**The first indoor meeting of the winter session was held at the Guildhall, Worcester, on the 7th inst. Mr. Lewis Baylis was voted to the chair. The Secretaries reported that they had been in communication with the Liverpool Society, and that a set of the Boston slides could be had for exhibition at the next monthly meeting on the 4th November. The Secretaries were requested to make the necessary arrangements. The question of holding competitions during the winter session was referred to the Committee for consideration. A general discussion then took place, in which members stated their experiences in the working of the Eastman film; Aristotype, Obernetter, Alpha, and other papers; Watkins' exposure meter; and the intensification and reduction of negatives. Various apparatus having been shown, the meeting concluded with a lantern slide exhibition; the lantern being kindly lent by Mr. J. Camm.

**YORKSHIRE PHILOSOPHICAL SOC: (PHOT: SECT:)—**The annual meeting of this section was held in the theatre of the Museum on the 3rd inst. The annual report was read, showing that the number of members was steadily increasing, and that considerable progress had been made during the past summer in the important work engaged in by the members—the production of a photo-survey of York and its immediate neighbourhood, the limits of area to be extended as opportunity permits. The officers of the section were elected for the ensuing year. The financial position of the section is satisfactory, there being a considerable balance in hand, after defraying the costs incurred by the purchase of apparatus necessary for the accommodation of members. A large collection of negatives and prints was shown by the members present.

**TOMB OF DAGUERRE.—**Mr. F. B. Ellison, of Ripley, Yorkshire, has sent us twenty shillings as a contribution to the fund we are endeavouring to raise for the repair of the tomb of Daguerre. We do hope others will help. Only three men out of all the army of workers have yet been found to give of their substance to so worthy an object. Any sum can be sent and will be gladly received by the Editor of the AMATEUR PHOTOGRAPHER.

**DEVELOPING DISH FOR SLIDES.—**The Fry Manufacturing Company have sent us a sample of their glass-bottomed dishes for developing lantern plates. The frame is of ordinary white wood varnished, and at the side a brass pin is placed which holds one side of the plate a little above the bottom, so that it can be easily taken hold of. The dishes are light and strong, and, as they can be had in larger sizes, are likely to be much used.

**CELEROTYPE PAPER.—**The Blackfriars Photographic and Sensitising Company have sent us a sample of their new gelatino-chloride paper, Celerotype. We have not yet been able to try more than two methods of toning—acetate and phosphate of soda—but in both cases the results were excellent. The paper prints quickly, brings out the details well, and gives a good surface.

**CORRECTION.—**The Secretary of the Lewisham High Road Camera Club says: "I notice in the report of the Lewisham High Road Camera Club of the meeting held October 3rd, it is stated that Mr. Agnew, the demonstrator, gave exposures with Alpha paper from three-quarters of a second upwards. A mistake has evidently crept in, it should read three-quarters of a minute upwards."



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4236. **Negatives, Scum on.**—What is the cause of white scum appearing on my negatives a few days after drying? Can be rubbed off with methylated spirits, but reappear. Plates No. 25 are developed with pyro-ammonia and well washed after fixing. What exposure is necessary with such a plate, sensitometer 25, large stop, bright sunny day, for groups, etc., using a landscape lens?—**STONEWALL TAYLER (Manitoba).**

4237. **Stops.**—Will any amateur tell me how to mark my stops, the relative value of each, and, if one second exposure is sufficient for the largest, what exposures are needed for the other three? Focal length (from back of single lens to ground glass) is  $8\frac{1}{2}$  in. Diameter of clear glass of single lens is  $1\frac{1}{2}$  in.; diameters of stops are  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$  in. respectively.—**STONEWALL TAYLER (Manitoba).**

4238. **Thin Negatives.**—Why are my negatives too thin after development? I use "Stanley" plates (Canadian), sensitometer No. 25, and expose from three seconds to instantaneous in bright light, for figures. Even in the shade, with instantaneous exp. sure, the negatives emerge from fixing bath just a faint image. I use single lens and large stop. I develop with pyro-ammonia, developing till the high lights are just visible on the back, using plenty of accelerator—hypo, 4 oz. to pint of water. Would longer development with less ammonia help me, or do I develop too long? Full information will greatly oblige.—**STONEWALL TAYLER (Manitoba).**

4239. **Mounting Board.**—Please inform me where the mounting board mentioned in **AMATEUR PHOTOGRAPHER**, September 12th, 1890, p. 191, is to be procured; also price.—**SUBSCRIBER.**

4240. **Rapidity of Lenses.**—Will anyone kindly say what is the comparative rapidity of the following lenses when working at  $f/16$ , other conditions also equal:—Ross's rapid symmetrical, 8 by 5 in.; Ross's portable symmetrical (No. 3) 5 by 4 in.; Taylor's rapid view (single), 8 by 5 in.—**C. C.**

4241. **Splashed Negatives.**—I splashed some negatives by upsetting the ferrous-oxalate developer, and did not see the stains till they were dry. What will take them off?—**L. B.**

4242. **Uniform Standard Stops.**—Would some one kindly give me the name of any book on photography that would give the formula for calculating the numbers that would apply to uniform standard stops against the uniform ratio of stops?—**H. S. C.**

4243. **Negatives for Lantern Slides.**—Will any amateur kindly lend me a few quarter-plate negatives to make lantern slides from; will pay carriage and return within a week.—**W. J. HINCKLEY** (address with Editor).

4244. **Varnish.**—Will someone kindly tell me how to remove the black varnish from a positive without damaging the film, as I want to print from it?—**J. P.**

4245. **Mounting.**—Could any of your readers tell me the best method of placing prints on cards, and what sort of paste to use?—**W. V. B.**

4246. **Plate-Holders for Hand-Camera.**—Will some reader with experience kindly give me idea or sketch of above? Am making hand-camera, and am in a difficulty as to method to employ for placing plates for exposure, and withdrawing same. I was in favour of something similar to Marion's quarter-plate rubber bags.—**PRIXE** (address with Editor).

4247. **Lens for Football Match.**—Will someone kindly tell me the best lens to use for taking a football match, last Saturday in November for a whole-plate? I shall much value some good advice on the above subject.—**W. M. P. G.**

4248. **Spotting and Retouching.**—Will someone kindly inform me whether negatives are spotted with Indian ink or red paint? If the latter, what kind of paint, and how made? Also, what kind of colours is used for spotting and retouching prints?—**G. D.**

4249. **Hypo Stains in Bottles.**—How can bottles be cleaned in which hypo has been deposited as a black stain?—**G. D.**

4250. **Intensification by Re-development.**—Wanted, directions for intensifying by silver-pyroyre-development?—**G. D.**

4251. **Hydroquinone and Eikonogen.**—Could someone kindly oblige me with a good formula for hydroquinone and eikonogen mixed? Perhaps Mr. Wall will oblige?—**DEVELOPER.**

4252. **Photographic Society.**—Will any reader kindly give me the address of a Photographic Society near Archway Tavern, Highgate, and let me know how I can get an introduction, as I am thinking of joining one.—**A. LAWSON** (address with Editor).

4253. **Transferotypes.**—Any help as to the best transferotypes, with their respective formulas, and also opals, and the best way to succeed with them, would be gladly received by—**T. W. B.**

4254. **Prints in Optical Contact.**—Which is the best mountant for adhering photographs to glass, face downwards, to give a clean view of the picture, and mode of procedure?—**T. W. B.**

4255. **Toning Aristotype Paper.**—When toning this paper it curls up into quite a roll, and becomes quite unmanageable. This occurs both in toning with borax and tungstate. Can some friend tell me how to stop this rolling? The prints are all right until they have been in the toning bath some little time, say five minutes. I have had to stop using this paper.—**BRADBURN.**

4256. **Studio.**—Will someone kindly inform me how the blinds should be arranged in the above? Is there any book about it? I have had a studio put up with the usual glass in the roof, but do not know how to arrange the lighting. Also what colour should the blinds be?—**C. B. R.**

4257. **Orthopanactic Lens.**—Can any reader give me any information about a lens named the Orthopanactic, sold by H. Newton and Co.; also what is the original price to cover half-plates?—**Hypo.**

4258. **Matt-Surface Paper, Toning.**—Would any friend kindly give me a formula for toning matt surface, producing a light sepia tone.—**T. B. W.**

4259. **Aristotype Paper.**—After toning this paper, and getting it a nice purple-black, I put it (after washing) into the fixing solution (3 oz. hypo to 20 oz. water), when it turns to a sort of reddish colour, not at all pleasing. It recovers itself a little only during the washings. Can anyone give me a remedy for this? I want to have a good purple-black?—**BRADBURN.**

4260. **Enlarging Lantern.**—Could anyone recommend to me which is the best enlarging lantern for making enlargements for competitions, and if same is suitable for exhibitions and entertainments?—**A. B.**

4261. **Tinting Photographs.**—I noticed at Wallacey Photographic Association Mr. Foyer showed some colours for tinting photographs. Although used to painting, I should feel obliged if Mr. Foyer, or any of your readers, would kindly inform me how to mix both water and oil colours for tinting photographs, as I can seldom make the colours stick on several photographs I have tried, and prevent colours drying dull?—**S. J. MOORE.**

4262. **Touring.**—Will someone recommend me a good tourist guide to the counties, suitable for an amateur as well? I have Ward's "North Devon and Cornwall," which I find excellent. I want them for Hampshire, Dorset, Surrey, and the eastern counties, suitable for short journeys near home, and also Somerset and Derby, and round about the latter.—**T. J. HUGHES.**

## QUERIES UNANSWERED.

July 11th.—Nos. 3979, 3989, 3992, 3995.

18th.—Nos. 4009, 4020, 4027.

25th.—Nos. 4036, 4045.

Aug. 8th.—Nos. 4061, 4066.

22nd.—Nos. 4089, 4090, 4096, 4100, 4104.

29th.—Nos. 4116, 4123, 4124, 4125.

Sept. 5th.—Nos. 4129, 4131, 4133, 4136, 4137, 4141, 4143.

12th.—Nos. 4149, 4150, 4151, 4152, 4153, 4154, 4157.

19th.—Nos. 4161, 4163, 4166, 4167, 4168, 4172, 4173, 4174, 4179, 4180.

26th.—Nos. 4186, 4191, 4192, 4193, 4195, 4193, 4197, 4198, 4203, 4204.

Oct. 3rd.—Nos. 4211, 4212, 4213, 4215, 4217, 4218, 4219, 4222.

10th.—Nos. 4224, 4228, 4229, 4231, 4233, 4234, 4235.

## ANSWERS.

4207. **Rivot's Paper.**—I have used it for several months with considerable success. Like other good papers, good bright negatives give bright prints. It saves an immensity of trouble, and there is no uncertainty in the process, as in other methods of printing. It is particularly suitable for landscapes, and I am at a loss to account for its not being more generally known.—**R. HOLBECKE.**

4225. **Purple Tones.**—Try the following:—Soak your prints for half-an-hour, about three changes. Mix  $\frac{3}{4}$  oz. carbonate soda, 1 pint water; have this bath thoroughly mixed, soak five minutes, then put in three changes of water. Toning bath:—

Tungstate ...	...	...	...	30 gr.
Phosphate soda ...	...	...	...	20 "
Gold ...	...	...	...	1 "
Water, to ...	...	...	...	8 oz.

Mix the soda with 3 oz. warm water, add the gold, then make up to 8 oz.; tone till red colour disappears. To print fairly deep, put in bath—

Common salt ...	...	...	...	1 oz.
Water ...	...	...	...	1 pint
Ammonia '880 ...	...	...	...	3 drops

Remain five or seven minutes; follow on with

Hypo ...	...	...	...	2 oz.
Water ...	...	...	...	1 pint

for ten or fifteen minutes. Keep your fingers clean when taking your prints from one bath to the other. The paper you name is good. It is a great thing to wash your prints well before toning.—**PETER PIPER.**

4223. **Negatives Wanted.**—I have half-a-dozen negatives of Dinant, River Meuse, etc., taken last month, which I shall be happy to lend you, when I have made a few prints, say a week or fortnight's time.—**E. A. D.** (address with Editor).

4227. **Queensland, Plates in.**—Ilford plates can be had all over Queensland, and prices are little, if any, in excess of those at home. On arrival, put yourself in communication with Lichtner and Co., who have a branch house in Brisbane.—**J. H.**

4230. **Plates.**—The Ilford plates are certain to give you satisfaction. I have lately got sensitised paper from the London Stereoscopic Company, and found it very satisfactory. You can get it ready cut for any size plate.—**H. I. C.**

4232. **Toning Bath.**—After using your bath for say one sheet of paper should not use again. You say first neutral. Do you mean without the gold? Make a fresh bath every printing operation. You will get better results.—**PETER PIPER.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE **TUESDAY MORNING'S POST** if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. *Th's we much regret.*—**ED. A. M.: PHOT.**

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**JAS. F. STEPHENSON.**—We should advise you to make another negative on a film. You can then print from either side. Negative is returned.

**G. ROBINSON (Antwerp).**—You will have received our letter with reference to loan of slides.

**J. KIRKPATRICK.**—Within about a fortnight.

**CYRIL S. COBB.**—Many thanks, duly registered.

**DAVID LEWIS.**—Have made the correction.

**AMATEUR.**—Certainly, you can. The Fry Manufacturing Company publish a little manual by Mr. A. R. Dresser, which will help you.

**R. S. T.**—A rapid plate, with the lens well stopped down. You should back the plate. The "blurred" appearance, as you call it, is halation.

**P. C. B.**—Send us the lens.

**G. BUTCHER.**—We are obliged, and have made a memorandum of the name and address for next year's register of dark-rooms.

**SIDNEY T. ANSELL (Algiers).**—You will find F a cheap and good all-round lens. Fit the same to D camera.

**EGAYOS.**—They are both admirable lenses. We should prefer A.

**J. R. T.**—You will find No. 1 an admirable lens. The maker will, of course, tell you if "you can get it less for cash."

**W. C. M.**—Competition No. 18.



**BROCKLEY ROAD.**—54, Pall Mall, close to the National Gallery. Any omnibus going to Charing Cross will take you close to the Gallery, 10 till 5, 1s., 7 to 10, 6d.

**ALEX. MATHIESON.**—The print sent has been used. **MISS EMILY CULVERHOUSE.**—We should be very careful of any firm sending out such circulars. Some of the photographic journals have devoted some space to the subject; but we do not think our readers would be gulled by such a scheme.

**F. I. C.**—The print you send us, if proof were needed, a very ready one, to show that nothing is to be gained by omitting the washing before toning, and we trust you will not follow the example of your "friend."

**H. T. WOOD.**—It is almost impossible to eradicate "flare spot." You had better send the two negatives and the lens to the maker. There are several causes for flare spot. It is possible that it proceeds from reflection of your diaphragms, that is, if they were bright, or the cell in which the lenses are mounted may not have been carefully blackened. Again, "flare spot" sometimes proceeds from a too globular form or shape of the lens itself. Anyhow, the maker is the best man to consult with.

**MISS CRESSWELL.**—We have written to you. The dealer is not to blame for the condition of the paper. You had better call upon him.

**J. W. RADIE.**—The direct print is excellent, but the enlargement was not up to medal work. Yes, you may.

**J. DUDLEY.**—Why not send direct to the firm for the paper? We have sent them your letter.

**T. H. C. M.**—Either will be found thoroughly serviceable. We prefer the A lens.

**F. KELLY.**—(1) You will find 3 an excellent plate, and for quick work use the xxxxx brand. (2) Certainly, you may use them for out-door work. (3) Yes, and very serviceable.

**T. J. HUGHES.**—Afraid we cannot help you much, so insert as a query.

**NOVICE.**—(1) Yes, any photograph such as you describe. (2) You should secure good purple tones with the following:—

Chlor. of gold	...	...	...	1 gr.
Borax	...	...	...	20 "
Distilled water	...	...	...	10 oz.

(3) The lens you mention is a landscape lens.

**FRIETHIOF.**—Send us your print, and we will tell you more about it. For half-plate, from 30s. to £5 10s.

**YELLOW JACK.**—Insufficient washing or hypo stains, or stale paper. Send us a print.

**W. H. NEWCASTLE.**—If we saw the negatives we might be able to help you. We cannot from the prints.

**T. BARCLAY.**—Shall be very glad to hear from you, and will write you later on.

**JAMES FINDLAY.**—On the sheet of cardboard. Use lantern slides No. 4, and write the makers as to toning to a warm brown.

**G. DE B. BALL.**—In No. 1 your foreground is out of focus. No. 2 is very fair, and with careful printing you will get better work out of the negative. No. 3 you have not focussed carefully, and are too near the principal object in the picture. You need not be fearful as to your work. You should have by you a useful hand-book. "Experimental Photography" (Leaper) would help you. Learn to expose correctly, and be careful not to rush development. Print in a diffused light, and be patient.

**P. E. B.**—If you will send us up the lens we will see it, and the makers for you.

**A. H. CORDER.**—The slides may be ten of either subject named in the class, or the ten may be made by contributions of each subject. The forms will be sent you next week, and we shall be very pleased if you will distribute them.

**N. S. P.**—Really we cannot say; depends upon rapidity of lens, plate, light, etc. In either case you mention the exposure would have to be a fraction of a second, from one-twentieth to one-fiftieth probably. You say *autotype*; we suppose you mean *aristotype*. This paper does bring out the detail more than any other in the market.

**F. A. BELLAMY, W. T. WHITE, S. FRANCIS CLARKE, C. E. GREENALL, Mrs. CULVERHOUSE, E. BECK.**—Will write you re dates for loans of prints, slides, etc.

## Sale and Exchange.

**NOTES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange"

column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.O., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

## DEPOSITS.

**Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.**

**Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.**

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Backgrounds.**—Backgrounds, new, 7 by 6, on rollers, painted oil both sides, one interior, other plain; 25s.—4, Nubla Terrace, Putney.

**Cameras, etc.**—Watson's half-plate Acme camera, three double backs, all brass-bound, turntable in base, four-fold tripod stand. Voigtlander's medium-rapid Euryscope, waterproof focussing cloth, in solid leather case, with lock; price £14 10s.—T. H. R., 2, Fisher Street, Red Lion Square, London.

Half-plate Instantograph camera, double back, and tripod, old pattern, 24s.; good single lens and pneumatic shutter, 10s.; eight half-plate Tylar's slides, two screens, 16s.; Hinton's Academy R.R., 10s.; last five vols. AMATEUR PHOTOGRAPHER, 12s.; lot of sundries very cheap; will exchange whole-plate R.R.—Address, letters only, Avery, 45, Park Street, Dorset Square, London.

Large box studio camera and portrait lens; £5 10s.—7, Dereham Road, Norwich.

**Cameras, Lenses, etc.**—Underwood's quarter-plate Instanto camera, dark-slide, tripod, Euryscope lens, new; bargain, 42s.—H. Rowe, Wallbridge, Stroud, Glos.

Whole plate camera, three double slides, Ross' 10 by 8 R.S. lens, with Newman's shutter, Ross' No. 7 P.S. lens, tripod, sundries, etc., Lancaster's 1889 half-plate Instantograph, three double slides, Beck's 8 by 5 R.R. lens, Iris diaphragms, four-fold tripod, case, etc., all in perfect condition; offers wanted for either set or parts.—Alfred Hendrie, Thornwood, Uddington, N.E.

6½ by 8½ camera and lens, also quarter-plate burnisher and retouching desk.—Hummel, Box 7, Quay-side Post Office, Newcastle-on-Tyne.

Lancaster's half-plate Le Meritoire camera, rack-work lens, two double backs with carriers, and tripod; 35s.—Perkins, Hill Park, Uffculme, Devon.

For sale, Lancaster's half-plate Instantograph, with two slides and Optimus lens, superior sliding stand, nearly new, £4 12s. 6d.; strong portable tripod, for whole-plate or 10 by 8, 7s. 6d.; or exchange quarter landscape negatives.—Sissons, 102, Hamstead Road, Birmingham.

Quarter-plate reversing Instantograph, 1889 patent, four special double slides, carefully selected view lens, and pneumatic drop shutter; cash £2 3s.; extras if wanted; approval; deposit.—X. Y. Z., 5, Douglas Street, Derby.

**Dark Slides.**—Three double dark-slides, quarter-plate, mahogany, they fit Lancaster's Instantograph, are in good condition.—E. Stoney, Weaver Hotel, Weston Point, Runcorn.

**Gas Generator.**—Chadwick's portable oxygen gas generator, very good condition; £3 10s.—Thompson, Brooklands, Manchester.

**Hand-Cameras.**—Kodak No. 4, regular, nearly new; £8; cost £10 7s. 6d.; report may be had from Editor.—No. 80, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.O.

Diamond hand-camera for sale, excellent condition, complete; 24s.; or exchange for Marion's 2 by 2 metal camera, complete.—Knight, High Street, Godalming.

**Hand-Cameras, etc.**—Quarter-plate hand-camera (24 pictures without recharging, size of camera 8 by 6 by 5), finder, rapid rectilinear lens, time and instantaneous shutter, 63s.; half-plate roll-holder, fits Instantograph, could be altered, 30s.; Optimus plunge whole-plate shutter, 25s.—H. A. Fardell, 8, Sussex Place, London, W.

**Lamps.**—Lancaster's Rubralux lamp, 5s.; also small oil lamp, cost 3s., take 1s. 6d.—Taylor, Tan-nery, Marple.

**Lenses.**—7 by 5 rapid rectilinear lens, as new; bargain, 21s. 6d.—14, George Street, Stroud.  
5 by 4 wide-angle rectilinear lens; 26s.; deposit.—Bennett, 43, Mitchell Street, E.O.

A good carte portrait lens for sale, excellent condition; 30s.; approval; deposit.—H. Knight, 32, High Street, Godalming.

**Lenses, etc.**—Half-plate portrait lens, rack adjustment, Waterhouse diaphragms, and square half-plate camera and slide, 25s.; paraffin ruby lamp, new, 4s. 6d., cost 6s. 6d.; whole-plate folding ash tripod, 6s. 6d., approval, deposit; also plain canvas background, 7 ft. wide, 6s., a bargain; offers.—X., 18, Braybrooke Road, Hastings.

**Sets.**—Lancaster's quarter Instantograph set, camera, lens, shutter, dark slide, tripod, also six Tylar's quarter metal slides, Abrahams' R.R. lens, f/8, Eclipse changing bag, focuser, Gem drop shutter; best offer taken for whole or part, or exchange for half-plate set, all perfect condition.—Coveney, 7 Edward's Road, Bow, E.

## WANTED.

**Backgrounds.**—Plain and scenic backgrounds, in good condition; approval.—H. Press, Broad Street, Bath.

**Burnisher.**—Burnisher, half or whole plate, good make, cheap for cash.—Wright, Stone Villas, Hounslow, W.

**Cameras, etc.**—Half-plate portable camera, by good maker, with three slides and latest movements; approval.—Santo Crimp, Thurlstone, Mansel Road, Wimbledon.

Good half-plate camera, leather bellows-body, half-plate lens, rapid rectilinear or rapid symmetrical, ditto instantaneous shutter.—State full particulars, maker, and lowest price, separately or together, to Moorhead, 30, Rosemary Street, Belfast.

**Hand-Cameras.**—Hand camera, good maker, Swinden and Barp's preferred.—Dr. Fitton, Dewsbury.

Swinden and Barp's hand-camera, quarter-plate, in perfect order.—T. Boston, Balmuick, Comrie, Perthshire.

Shew's Eclipse hand-camera, half-plate, with lens complete; approval; letters only.—Photo, 128, Stamford Street, S.E.

**Lenses.**—A good 12 by 10 rapid rectilinear lens, in exchange for splendid microscope and polariscope, value £10; approval.—Firth, Oakleigh House, Wakefield.

Good 12 by 10 view lens, must be cheap.—A. Booth, 2, Palin Street, Nottingham.

Quarter portrait lens, by good maker; will exchange for new violin and bow (by Butler), cost 20s.—R. Roberts, Salem Terrace, Crickleth.

7 by 5 Optimus R.R., cheap for cash.—Thomas, 93, Stamford Street, S.E.

**Limelight Apparatus** for enlarging lantern, safety or interchangeable burner, limes, etc.—Apply, Dr. Bennett, Bandon, Cork.

**Magic Lantern.**—Magic lantern, cheap; state size of condenser.—G. Maile, 397, Euston Road.

"Photographic Quarterly."—No. 1, "Photographic Quarterly," issued October, 1889.—Apply, stating price, to Brewis, Blytheville, Darlington.

**Set.**—Good quarter-plate set, with three backs and good lens.—Cowen, 43, Mount Pleasant, Reading.

**AMATEURS** to send a Photograph or Negative, and have a wet-plate collodion Lantern-Slide made from it. Post-free 1s. 1½d.—APPLEYARD, Photographer, Barmouth, North Wales.

New Edition, just published, crown 8vo, cloth, 280 pp., price 3s. 6d., post free.

## The Book of the Lantern.

By T. C. HEPWORTH, F.C.S.

A Practical Guide to the working of the Optica (or Magic) Lantern—either as an Educational Instrument, for Exhibition Purposes, or as an Enlarging Apparatus for Photographers. With full and precise Directions for Making and Colouring Lantern Pictures.

"Here we have something like a lantern manual! handsomely bound, comprehensive work, written by acknowledged master in lantern operations."—*Ph. Graphic News*.  
"Comprehensive, and is characterised by an excellent literary style."—*British Journal of Photography*.  
"The most thoroughgoing work of its kind."—*Scotsman*.

To Amateur Photographers, Cyclists, and Anglers.



## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot: Soc: of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
.....	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Wolverhampton Phot: Soc: ... ..	Wolverh'ton.	Nov. 10.	Nov. 15.	J. W. Evans, 52, Darlington St., Wolverhampton.
Edinburgh Phot: Soc: ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Phot: Soc: of India ... ..	Calcutta.	Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor, I.W. ... ..	Ventnor.	Jan. 19.	Jan. 24.	W. Hoskin, Lit: and Sci: Institution, Ventnor.
Liverpool Am: Phot: Assoc: ... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Gloucestershire Phot: Soc: ... ..	Gloucester.	April 17.	April 27.	A. H. Clinch, Bank Buildings, Southgate Street, Gloucester.
Vienna Club of Am: Phot: ... ..	Vienna.	April 30.	May 31.	Carl Srna, VII., Stiftgasse 1, Vienna.

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**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice, or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.	Twelve Months, 10s. 10d.
POSTAL UNION .....	6s. 6d.	13s. 0d.
INDIA, CHINA, ETC. ....	7s. 9d.	15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

## “AMATEUR PHOTOGRAPHER” MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS OF THE *AMATEUR PHOTOGRAPHER* offer, Monthly, two prize consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 18.—INLAND SCENERY, LANDSCAPE ... ..	Nov. 1.
„ 19.—SEASCAPE and RIVER SCENERY ... ..	Dec. 1.
„ 20.—PORTRAITURE and FIGURE STUDY ... ..	Jan. 1.
„ 21.—ANIMALS and INSTANTANEOUS SUBJECTS ... ..	Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM: PHOT*:

All photographs for any of the above competitions will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, “*Amateur Photographer*,” 1, Creed Lane, Ludgate Hill, London, E.C.

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PARK ROAD, BARNET.

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# THE AMATEUR PHOTOGRAPHER

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Telegraphic Address: VINEY, LONDON

Offices: 1, Gress Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 316.]

FRIDAY, OCTOBER 24, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

*'To hold as 'twere the mirror up to nature.'*—Shakespeare.

WE are hoping to receive early prints of instantaneous photography, in order that they may be incorporated with, and reproduced in, the excellent series of articles appearing upon the subject from the pen of Mr. W. J. Harrison, F.G.S.

\* \* \* \*

IN another column we reproduce what we believe to be the first portrait taken by one of the machines erected by the Automatic Photograph Company. Mr. Alfred E. Venn, our contributor, tells his own story, and we can only say that the ferrotype from which our illustration is copied is an admirable portrait of Mr. Venn. This machine certainly marks an epoch in photography, and we are pleased to have had the opportunity of so early reproducing a photograph taken without the aid of either operator or professional printer. Whether these machines are destined to be financially successful we will not venture to hazard an opinion, but at least they show a marvellous application of mechanics to a scientific use.

\* \* \* \*

THE date of the Tunbridge Wells Exhibition has been fixed; it will open on the 26th of November and close on the 29th. There are eight classes for "members only," and eight open to all comers, four for amateurs and four for professional photographers. The subjects in the former are Landscape or Seascape; Genre; Lantern Slides; and Architecture, exterior or interior; and in the latter, Landscape or Seascape; Genre; Lantern Slides; Portraits. Silver and bronze medals are given in all classes except Classes 3 and 8, in which special prizes are offered. Sir David Salomons, Bart., has again offered a bronze medal for competition by the members. The Exhibition will be held in the Sussex Assembly Rooms.

\* \* \* \*

THE Council of the Lewisham High Road Camera Club has come to the front with considerable vigour, and we have received the syllabus for the winter session, which commenced on the 3rd inst. with a demonstration on "Alpha Plates." The meetings are held fortnightly, and on every evening some item of interest has been arranged for. The Hon. Secretary (Mr. B. Davidson) will be pleased to welcome new members. His address will be found in the "Directory of Photographic Societies," published every month in the *Photographic Reporter*.

A VERY interesting lecture will be delivered on Friday the 31st inst., upon "Phonography," at the Memorial Hall, Farringdon Street, by Mr. Isaac Pitman; the lecture will be illustrated by lantern slides, projected upon the screen, of shorthand characters, portraits of leading phonographers, and pages of facsimile notes from the note-books of Mr. T. A. Reed and Mr. E. J. Nankivell.

\* \* \* \*

THE twenty-second exhibition of the 19th Century Art Society will be opened to the public on Monday next, the 20th inst.

\* \* \* \*

THE *Graphic* for the 18th inst. contained an admirable reproduction of a wash drawing, one of a series taken on an autumn trip in the Mediterranean on board a P. and O. steamer. The picture is entitled "The Amateur Photographer at Work." The composition of the picture is admirable. In this case the "amateur" is the point of attraction, and he stands behind the camera full of the consciousness of his own ability to take a picture; but we would ask the artist whether it is probable that when cruising on the Mediterranean the photographer can dispense with that very necessary but much abused adjunct, the focussing cloth? In this case the camera is without the decoration, nor does it adorn the person of the operator. The camera and tripod are well drawn.

\* \* \* \*

THE collection of sketches and drawings of birds by Mr. H. Stacy Marks, R.A., now being exhibited at the Fine Art Society's gallery, in New Bond Street, is the result of a labour of love. He has keen sympathy with his subjects, and has with penetrating perception seized their form, colour, and expression, and has with equal success rendered the soft brown and grey tones of the downy covering of the Pallas's sand grouse, and the gorgeous colouring of the plumage of the macaw. It is, however, when some quaintness or oddity of form combined with the expression of the eye suggest a certain burlesque of humanity that Mr. Marks takes especial delight in embodying it, and he seems to have found in the penguin his most fruitful source of inspiration in this direction. In "Romeo and Juliet" (5), "The Cut Direct" (26), and "A Peacemaker" (85), this infusion of subject and humour has been gained without any undue strain or degeneracy into caricature. The studies



of single birds are wonderfully varied, and range from the stately Imperial eagle to the homely rooster; and a certain interest will be taken in the frame of "Early Drawings" (124), as proving that the boy is father to the man, and showing that in choosing these birds as the subjects for the exercise of his matured skill and power, Mr. Marks is only returning to his first love.

\* \* \* \*

GREAT YARMOUTH has made a successful start with its society, as will be seen from the short report of the inaugural meeting given in another column. Minor meetings for the appointment of officers have been held, and on the 15th inst. the inaugural meeting, under the presidency of the Mayor, was held in the Town Hall. Mr. Harvey-George, the Hon. Secretary, pointed out that the Society already consisted of twenty-eight members, they had secured the use of the Town Hall for the present, but hoped before long to get a place of their own to which a dark-room could be attached. The Liverpool Am: Phot: Assoc: slides were shown by the lantern, and the meeting was altogether a great success, presaging, we trust, a bright future for the Great Yarmouth and Dist: Phot: Soc:

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THE Belfast Y. M. C. A. Camera Club is doing good work in the direction of the artistic training of its members and their friends. Last week there was a special meeting of the club, at which there was a large attendance, the occasion being the exhibition of the "Illustrated Boston" lantern-slides, which were highly appreciated.

\* \* \* \*

LANCASHIRE has another society—"Wigan Phot: Soc:"—which was formally started on the 16th inst., when a committee of six gentlemen was formed to manage the affairs of the society, and Mr. F. Betley was appointed Hon. Secretary. The society is in a promising neighbourhood, there being a large number of young men starting photography, and as it was felt at the meeting that any large subscription would be prohibitory to them, a sum of half-a-crown was decided upon. This is very small, but doubtless, with the number of members, which may be expected, it will be found sufficient. We wish the society every success, and shall be pleased to hear of a steady growth in its membership.

\* \* \* \*

MR. TOWNSEND'S proposition that we should arrange for a competition based upon the best developer, has met with some support. We shall be pleased to hear from those of our readers who are prepared to enter the lists in support of their pet developer. After the publication of next week's issue we will formulate the scheme, and prepare entry forms, etc. We shall be glad of the names and addresses, in order that proper arrangements may be made as to the number of plates to be exposed.

\* \* \* \*

PHOTOGRAPHERS of all classes can undoubtedly find much food for thought, and discover many elements worthy of careful study in the pictures now adorning the walls of the Photographic Society's gallery in Pall Mall, for in many respects it is the best exhibition that has yet been held. In it photography makes a bolder claim for recognition as an art than it has ever yet done, but that it will not gain the universal consent of artists to the advanced position it is striving to attain, without further efforts or prolonged controversy, is still evident. Photography, however, is fast becoming the battlefield of art, which, be the issue what it may, must yearly increase the interest taken in the perpetual forward strides it makes. It behoves everyone,

therefore, who concerns himself at all about the questions at issue, to keep well posted up in all the latest phases of the matter now seeking a definite and universally accepted solution. Many visitors to this exhibition must of necessity for various and obvious reasons be unable to recognise the signs of advancement from an artistic point of view which it registers; but certainly no amateur photographer can go there and give it careful attention without deriving benefit from the object lessons he receives. As some slight assistance to many of our readers, we propose touching upon a few prominent features noticeable by careful inspection, and which will repay investigation.

Let the sins of amateur photographers be what they may, one point that scores heavily on their side, and for which they may honestly take all the credit due to them, is that they have made the ordinary professional photographer heartily ashamed of that class of work in which formerly his soul was wont to delight. This is evinced by the fact that so few, if any, now send for exhibition those absurdly framed travesties of the human face and form, which, but a few years ago, were painfully in evidence on all sides at this and other exhibitions, and which were largely responsible for the low position in art to which photography was relegated. In place of the flat heads, expressionless faces, stippled to resemble turnips, ungainly postures, grotesque backgrounds, and pictures exhibiting other atrocities which none but professional photographers would ever have dared to perpetrate, and then glory in the fact, we now see photographs that even the most exacting critic can look at without much cavilling. We do not mean to imply that any of them are faultless, but we maintain that the majority of the photographs that are conspicuous at the Pall Mall Gallery, and which of necessity give a predominating tone to the whole Exhibition, show that painstaking care in every particular has been expended on them, and it is easily to be discerned that photographers are now recognising the fact that art has laws as applicable to them as to the painter and sculptor, and which they are bound to obey if their productions are to take rank as works of merit. Those of our readers who remember the class of photograph that used to find favour at this annual exhibition, and can mentally compare it with the standard that now prevails, are in reality the only ones in a position to mark and recognise the advances that have taken place in the art-science within the last few years. One feature, however, is painfully apparent—the lack of originality in many of the pictures shown, the absence of individuality due to the too faithfully imitating some ideal or mannerism of a more noted worker. Judges who are no judges are greatly responsible for this soulless state of affairs. To read the opinions that have been expressed upon the judgments shown by judges at the various exhibitions held within the last four or five years, inclines to the belief that although men have been created capable of accomplishing nearly everything requisite for the wants of mankind in general, none have yet been made who are capable of judging at a photographic exhibition; or at least if there exist any, they have not yet put in an appearance in that capacity. As a rule, it may now be held that medalled pictures only exhibit the *taste* of the judges, and the fact that photographs of recognisable merit are unlabelled, while others showing no pronounced skill whatever have been selected for honour, must simply be accepted as evidence in favour of this contention. At any rate, amateurs seeking the why and wherefore with the object of learning something about their art, had better look at the matter in this light, or, as likely as not, they may set up false standards.

A photographer seeking to produce artistic pictures by



aid of his camera must first of all have some artistic training, and be able to recognise the laws that govern the representation of nature in a manner pleasing to man's faculties. This fact, however, does not mean that these laws must be absolutely binding. Some of the finest pictures of the most noted masters sin against many rules of their art, yet, nevertheless, are pronounced to be masterpieces. Originality such as this is wanted in photography. Standing in the middle of the gallery at Pall Mall, it is easy to see that the first thing in selecting a scene the exhibitors have had in mind was to get balance. A mountain on one side must have a tree, a building, or another mountain opposite—if nature has failed to supply the article, then a dark cloud must be printed in. Roughly speaking, this seems to be the prevalent idea. Now this is all very well, but the result is monotonous in a series of photographs where such laws cannot be held to be of universal application. Light and shade, true values, and tonality are of more consequence in the general run of landscape work. The laws governing art, while of general use, are only made to be set at naught by men who have genius, otherwise rule of thumb work prevails and monotony is supreme. Everyone is ready to acknowledge that laws cannot be broken with impunity, yet it must not be forgotten that the world will also hail as a hero the man that defies them with success. Photographers must not be so palpably fettered and cramped by the schoolmaster.

Another point to which attention has been drawn centres around the controversy now raging respecting the merits of sharpness and diffusion, wealth of detail, or its mere suggestion. Without entering into this discussion we may observe that it is entirely confined to work whose *raison d'être* is its claim to be artistic. If the camera can be used to produce photographs that resemble the works of any other branch of art, so much the better. It increases the number of applications to which photography lends itself. But it does not exhibit those features of the art-science which are peculiarly its own, and which, commonplace though they may have become, are nothing less than marvellous. While every encouragement should be given the workers in the art category of photography, no confusion should be allowed to exist with respect to their position as photographers. The claim that the two schools should be kept distinct is one worthy of attention for cogent reasons can be advanced in its support. The microscopic powers of rendering detail peculiar to the photographic lens and sensitive plate are qualities confined to them alone. In this photography defies imitation by any known art. Photographs pure and simple have merits with some, more worthy of admiration than if they were masterpieces of art, let them be styled topographical, scientific, or any other cognomen deemed appropriate. A diary may not be literature in a high form, but yet be more interesting, instructive, and readable than a work possessing great literary powers; so a series of photographs showing in the profusion of detail minute features characteristic of the scenes they portray may, from a high art standard, have no value, and yet be more entertaining, instructive, and valuable to the world at large than photographs which claim recognition as thoroughly artistic productions. The advances of photography have been made by men who recognised and delighted in its wondrous capabilities for representing every minute detail before the lens. Art work, pure and simple, is an attractive bye-path of photography. Let not the ordinary amateur, therefore, be discouraged if he keeps upon the high road. The work he can do may not be pronounced artistic, but it can be made of more sterling value. An imitation is rarely of much worth, and art photography on any other basis is still in swaddling clothes and in the nurse's arms,

## Negatives and Positives.

WOOD-CARVING is evidently a "coming thing." We learn that "a school of wood-carving for women is on the tapis in New York." Is the "carving-bench" going to replace the "dark-room and studio"?

\* \* \* \*

"HIM as prigs what isn't hisen, when he's ketched, he's sent to pris'n." So saith the poet, and never a word put in about enthusiasm! Thus, when an *enthusiastic* photographer "prigs" a lens or two, the stony-hearted justice declines to let him off on the plea of enthusiasm. We once knew a man who collected coins (those in currency preferred), and he—"but that is another story."

\* \* \* \*

THE following extract from a letter from the Edinburgh Exhibition to a London firm to whom has been awarded a medal, has been brought under our notice: "You are to understand that this does not carry with it the gift of the silver medal, which should you have, you will have to pay for." This reminds one very forcibly of a certain photographic exhibition. (Chorus: *Le jeu n'en vaut pas la chandelle.*)

\* \* \* \*

A VALUABLE addition to the art gallery of New South Wales, at Sydney, has been made by Mr. J. R. Fairfax, who has presented to the trustees a complete cast of the celebrated Ghilberti gates.\* Lorenzo Ghilberti started his art life by learning the goldsmith's art, at the same time studying painting. At the age of eighteen he assisted in some of the frescos of the palace of the Malatesta at Rimini. Two years later, at twenty, he was the successful competitor for the execution of the bronze gates of the Baptistry at Florence. The first gate in twenty-eight panels took twenty-three years for its completion; a second similar gate took twenty-eight years in the making. The marvellous beauty of the reliefs of these famous gates drew from Michael Angelo the remark that they were worthy to be the gates of paradise. But let us not forget that a great modern light has told us that Michael Angelo was a mere anatomist, a duffer, in fact, or "words to that effect," as say the lawyers.

\* \* \* \*

OPINIONS on the focus question seem very much out of focus at present and suffering from diffusion, confusion, aberration, dispersion, and many other ills for which it is not easy to find a name. When the history of this present storm in a teacup (or pinhole) comes to be written, the historian who studies contemporaneous journalism will possibly be led to write somewhat thus, "Whatever be the merits of the contending parties, it seems clear that the palm must go to the exponents of the self-called 'Naturalistics,' not only for the ardour with which they espoused their cause, but also for the richness of invective and vigour of language which not infrequently was made to supply the place of consistency and argument."

\* \* \* \*

THERE are several ways of discussing and illustrating a doctrine. One present method is somewhat as follows: "The only way is my way. Any one who does not agree with me is an idiot. Study my productions. . . . I admit they are not perfect, but they are nevertheless good enough for the instruction of the rest of creation. For still better examples study *x* and *y* and also *z*, all my own. In short, I may conclude my modest remarks by observing that, in addition to myself and one or two others, no one knows anything whatever."

\* Copies of these may be seen in the Renaissance Court at the Crystal Palace.



## Letters to the Editor.

### EIKONOGEN.

SIR,—I would advise Mr. G. Murray Wilson to try the acid sulphite of soda as a preservative of Eikonogen. I have used it very successfully ever since Eikonogen was first introduced.

The formula I recommend is—

Eikonogen	..	..	..	..	2 drms.
Acid sulphite of soda	..	..	..	..	1 fluid drms.
Water	..	..	..	..	10 oz.

This will keep a long time. For hand-camera work I use equal parts of this and a ten per cent. solution of carbonate of soda, and perhaps a little caustic soda if the plate is under-exposed. Of course, the accelerator must be reduced for normal exposure. For bromide paper I use the same developer, diluted with an equal quantity of water.

I enclose two rough prints on Ilford paper for your inspection, one developed with my formula of Eikonogen, the other with ferrous oxalate, and I think you will agree that there is not much to choose between them. The acid sulphite is the same as Messrs. Marion advise to be used in the fixing bath.—Yours faithfully,

G. R. BETJEMANN.

NOTE.—Both are of exceedingly good colour. Mr. Murray Wilson shall have them sent to him if he sends stamped addressed envelope.—ED: AM: PHOT:

SIR,—In answer to Mr. G. Murray Wilson's letter on "Eikonogen," I cannot understand why No. 1 solution, containing sulphite sodium, had turned a dark colour in a couple of days. I have used the eikonogen developer for a long time, and find it keeps very well indeed. In fact, I have just been using some I made three or four months ago, and it is quite good.

I always make up my solutions with distilled water.

The formula I use was taken from "The Year Book of Photography, 1890," p. 73, by S. R. Bottone, as follows:—

(1)					
Eikonogen	..	..	..	..	5 grms.
Sulphite sodium, crystallised	..	..	..	..	20 "
Water, distilled..	..	..	..	..	500 c. c.
(2)					
Potass. carb.	..	..	..	..	50 grms.
Water	..	..	..	..	500 c. c.

—Yours faithfully,  
October 15th, 1890.

EDWD. BARNES  
(late Captain, 27th Inniskillings).

SIR,—It is about eighteen months since a sample of Eikonogen first found its way into my possession, and, as between then and now I have had a rather varied experience of its capabilities, a short account of the same may possibly be of interest to those who have not yet given this comparatively recent introduction a thorough trial.

I obtained a bottle, containing about 1 oz., from a local dealer (in the midlands), but as there were no instructions with it I was on my (figurative) beam ends as to the constitution of my first eikonogen developer. However, a trial trip was made with a piece of bromide paper (Eastman) which had received a "normal" exposure, and the following formula was tried:—Eikonogen (5 per cent.), 3 drams; washing soda (10 per cent.), 2 oz.; bromide potass. (10 per cent.), 20 minims. The print developed in about the same time that ferrous-oxalate would have taken, and was of very pleasing brown tone.

It was very evident though that the Eikonogen solution required a preservative, as, unless it was kept absolutely air-tight, it very quickly discoloured, and its developing power weakened by the absorption of oxygen, while making up the solution every time it was wanted was not practicable. Sulphite of soda recommended itself, and a solution was made up of eikonogen 160 gr., sulphite of soda 2 oz., water 20 oz., which, in a stoppered bottle, kept very well. With this I tried negative-making, and many experimental plates were developed with this and the above-mentioned soda solution in many different proportions, but in no case could sufficient density be obtained, even though development was prolonged until the rebates fogged over.

Shortly after this time Dr. Andresen's formulæ came to my hand, and were at once tried, but with still the same result,

maximum of detail and minimum of density, but several good negatives were made with the carbonate of potass. formula, the requisite density being obtained afterwards in hydroquinone. The results, however, were no better than could have been obtained by the usual hydroquinone developer above, and my eikonogen was for the time being consigned to limbo.

Early last spring my attention was again directed to the subject, and I obtained a fresh sample from Messrs. Marion, making the solution up as before with sulphite of soda, but instead of using washing soda or the carbonates for the alkali, a solution of sodium hydrate was tried (8 gr. to the oz.), as given by Messrs. Thomas for their hydroquinone developer. After many, many attempts I managed to get a satisfactory result, and now use a developer which gives a fine negative, full of detail, density *ad lib.*, and no staining.

(1.)					
Eikonogen	..	..	..	..	160 gr.
Sulphite of soda	..	..	..	..	2 oz.
Water	..	..	..	..	20 "

(2)					
Sodium hydrate	..	..	..	..	80 gr.
Water	..	..	..	..	10 oz.

Two ounces of 1 to one ounce of 2, and add 5 minims of 10 per cent. solution of bromide of potassium to each ounce of developer.

The above proportions will suit what may be called "normal" exposures, but plates that have been very much over-exposed will yield good negatives if the caustic soda be reduced, the bromide increased, and the developer diluted; while for hand-camera work, or plates that have received a very short exposure, an increase of the alkali with the omission of the bromide will bring out detail that pyro-ammonia may equal but not well surpass.

Used for bromide paper, the results are not to be distinguished from prints developed by ferrous-oxalate, while the total absence of the stains occasionally produced by both iron and hydroquinone makes clearing solutions superfluous.

I have tried it also for slide-making, and with uniform success, a deep brown tone being easily obtained, giving a very pleasing effect.

By way of caution, use the solutions cold, and give the plates a most thorough rinsing after developing. A number of negatives spoiled by curious marbled markings puzzled me for a long time, until it was traced to the latter cause. The amount of washing that will remove pyro ammonia is nothing like sufficient to remove caustic soda and Eikonogen. Let these precautions be taken, and any brother amateur who tries the above formula will find it a most valuable aid to picture-making by photography. I would add that most of the experiments were made with Edwards' Isochromatic plates.—Yours, etc.,

THE SMITH.

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### DEVELOPERS COMPETITION.

SIR,—Will you kindly enter my name as that of a candidate for the Lantern Slide Developer Competition referred to at p. 268 of the AMATEUR PHOTOGRAPHER? It promises to be of interest to that ever-increasing class, "the amateur photographer." I am a worker in "iron," and intend to compete in that capacity, though I am not unfavourable to hydroquinone. I trust that your invitation will meet with such a response from your subscribers as will render the competition a practical and a real one.—Yours, etc.,

E. N.

October 17th, 1890.

SIR,—The discussion on the merits of hydroquinone and ferrous oxalate is very interesting, and a most useful competition could be started on the lines Mr. Townsend suggests; but might I point out that the test as proposed by him is hardly to the point? The discussion was as to which developer was the better for negative work, and he proposes that this should be decided on plates specially prepared for making positives.

Most who have had much experience of the various kinds of developing agents will allow that ferrous oxalate, hydroquinone, and eikonogen are better suited for developing positives than pyrogallol is, and that the best printing negatives are those the result of the use of the latter agent.

Might I suggest, then, that a competition in which the printing qualities of the various negatives can be tested would be



more scientific; the conditions as in Mr. Townsend's letter, but substituting six quarter-plates instead of six lantern slides; adding, negatives to be returned to the Editor, and he (if he will) to make such arrangements that the printing on albumenised or platinotype paper may be done by one person, thus eliminating all risks of competitors using different papers, or having bad light (such as in London) to print in, etc.

The competition to include ferrous oxalate, hydroquinone, eikonogen, hydroxylamine, pyrocatechin, antipyrin, and, last but not least, pyrogallol; competitors to furnish full particulars of constituents of developers, time for images to appear, etc.—  
Yours, etc., A. R. F. EVERSHERD.

October 20th.

SIR,—If you decide to have a competition as suggested by Mr. A. G. Townsend, I shall be glad to become one of the competitors, or rather developers.—I remain, etc., P. J. COOPER.  
68, North Road, Darlington,  
October 17th, 1890.

SIR,—You invite correspondence on a workable scheme of developing competitions.

Having exposed some four or five dozen plates, all Ilford ordinary, and all on same subject, in order to test the latitude of exposure with pyro, hydroquinone, eikonogen, and the two latter mixed, I should welcome any practical test of the relative merits of the above under similar exposures.

My own imperfect experiments led me to adopt pyro and ammonia as the best all-round developer with the greatest latitude for under and over exposed negatives, and as some indication of the range of pyro when properly restrained with bromide of ammonium, I enclose four prints, all of same subject, all from Ilford ordinary plates, exposed within three minutes of one another in bright sunshine, at 1.30 on October 8th, stop  $f/32$ , exposure 1, 10, 30, and 60 secs. In my hands other developers do not produce equal results. But this is possibly due to my comparatively slight acquaintance of other developers as compared with pyro. For instantaneous work I cannot myself get as good results with pyro; this is, however, probably due to want of experience, and the photograph of Mr. Meldon's, reproduced in this month's *Reporter*, taken with  $f/7$  and  $\frac{1}{10}$  sec. exposure, informs me that pyro can do almost anything in proper hands.

As regards results, if equally good workers develop with their pet developer, I expect the results will be practically the same.

My object in writing, however, is to ask that a series of much under and much over exposed negatives be issued and results compared, and if it is ascertained that one developer has a decided advantage over another in one direction or the other, *let the conditions under which the best result was produced be published*, and useful work will have been accomplished.

In such a competition the plates should certainly have the particulars of exposure marked on them with a diamond as a guide in development, and to prevent mixing, and in case two competitors were equal, a fresh plate should be issued as a final test. I have long wished for some satisfactory means of "laying" this vexed question of developers, and believe, if properly carried out, this proposal will add greatly to our knowledge on the subject—Yours sincerely,  
W. J. D. WALKER.

NOTE.—Letters have also been received from Mr. Sparham Camp and "F. M. G." These must be held over until next week.—ED: AM: PROT:

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#### TONING BROMIDE PAPER.

SIR,—I am quite prepared to accept Mr. Howson's suggestion as a partial solution of this difficulty. There can be no doubt as to the varied range of tone which can be obtained on the Alpha paper—from bath-brick yellow to sky blue, with any colour you like between the two.

I do not say this wishing to disparage the Alpha paper, which I know from past experience has all the good qualities the makers claim for it, and notably a varied range of tone.

But whilst this disposes of the question as regards obtaining warm-toned contact prints by artificial light, it still leaves the question of enlargements to be dealt with; and is not life just a little too short to allow time for enlargements on Alpha paper by lamp-light? What approximately would be the exposure to

enlarge say a half-plate to 12 by 10, using  $f/8$  stop and a  $\frac{1}{2}$  in. Argand paraffin burner?

I have looked up all the authorities on the subject, and the nearest approach to a solution I find in my oldest, and I think I may say best hand-book, Captain Abney's "Instructions in Photography." He says, page 219, "Should a browner tone be desired, it may be given *after toning* by a weak solution of ammonium sulphide, *the colour being permanent*. All excess should be well washed out."

As there is no mention of toning in the previous part of the chapter, I take it that there is a misprint, and it should read either "after fixing" or "after development." Can any one who has tried this give me their experience?

Mr. Wall, in his "Dictionary of Photography," says a sepia-coloured image may be obtained by platinum, but gives no definite instructions.

Is it not possible to do something by bleaching the print and re-developing or intensifying? I have tried a few prints bleached with a weak solution of bichloride of mercury well washed and then put in a weak solution of ammonia, and have succeeded in toning by this method to a rather pleasant purple-black colour. Is this likely to be permanent?

Before I close, may I suggest to any of your readers who use Alpha or smooth bromide paper, that there is a very wonderful improvement if the print is squeegeed on to matt-surface celluloid as is the print I send herewith.—I am, yours faithfully,  
EDW. B. WAIN.

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#### STAINS ON BROMIDE PAPER.

SIR,—As the season is now approaching when many amateurs will be looking over their negatives with a view to enlarging, may I draw attention to the fact that, in using bromide paper, the sulphuric acid bath for eliminating the stains of ferrous oxalate after development possesses one great advantage over that of acetic acid in the facility with which it can be thoroughly removed from the paper. On account of its great affinity for water, very much less washing is necessary, and this with many is, I know, of some importance. I also find that it removes *very much* quicker the stain after *prolonged* development than acetic acid does, even when the last-named is used double the strength recommended by most makers. I may mention that some enlargements made about four or five years ago, in which sulphuric acid was exclusively used, are as clear and pure in the whites as at the time they were made.—I am, yours truly,  
October 18th, 1890.

EIDYLLION.

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#### NAMES ON LENSES.

SIR,—Referring to the communications appearing under the above heading, it may be well to warn would-be buyers of second-hand lenses that spurious lenses are from time to time offered for sale purporting to be made by Ross or Dallmeyer. The *modus operandi* adopted is simple. The mount of a genuine Ross or Dallmeyer is exactly copied, including, of course, the description and stock number, and a French lens is then fitted into the mount. The whole is then sent to an auction-room and palmed off on the unsuspecting amateur either directly or through a dealer.

Twice within the last five years have such lenses been offered to me for sale. On the first occasion the mount of a No. 6 Ross rapid symmetrical had been exactly copied, but further examination revealed the fact that the lenses were simply a pair of uncorrected menisci, the whole arrangement acting, in fact, like Steinheil's periscope, but being utterly incapable of covering a whole-plate at full aperture as a genuine No. 6 R.S. would do. On the last occasion the forged mount of a Dallmeyer 4 D had been fitted with the lenses of a portrait combination, somewhat ground down at the edges. This just covered a *cabinet*, and no more!

I have been constantly in the habit of warning my friends never to buy a second-hand lens by Ross or Dallmeyer without first submitting it for examination to the reputed maker, and this warning, together with my two experiences, you will, I hope, permit me to repeat for the benefit of your readers.—Yours truly,  
CLEMENT J. LEAPER

(Instructor of Photography,  
City of Dublin Technical Schools).

October 18th, 1890.



## DIFFICULTIES IN ERECTING A STUDIO.

SIR,—Not knowing the law on the subject, I have been at considerable expense both in time and money in erecting and fitting a wood and iron building in rear of my house in Westminster, suitable for a dark-room and for enlarging purposes, etc. When nearly finished, a cantankerous neighbour (who had previously given his consent, providing I cut down a large tree), called in the District Surveyor, who informed me that I must immediately pull it down unless I had a special license from the London County Council. I have appealed to the Councillors, but in vain. They allege that they have no power to go against the rules of the Building Act of 1855, which practically means that the structure must be built of brickwork.

If the Photographic Society would use their powerful influence in getting this state of things altered so as to allow a small portable wood building to be erected in London back yards, I fancy it would be a great boon to photographers in general, and amateur photographers in particular.—I am, etc.,

October 16th, 1890.

J. MONTGOMERY.

\* \* \* \*

## ANOTHER SOCIETY AT SOUTHSEA.

SIR,—I beg to inform you that it having been considered that there was room for a photographic society in this part of the town of Portsmouth, a meeting has been held, and as a result the East Southsea Photographic Society has been formed. You are aware there is already a society at Southsea.

The ever increasing army of amateurs here proves that such a society as we have started cannot but be a boon to them. We have elected our officers and committee, secured rooms, which we take over from the 1st of November, giving us time by the first to get them in working order. Your correspondent has been appointed Secretary, and is able to oblige with all information required. Members joining before we take rooms over will be admitted free of entrance fee. We intend fitting one room as dark and enlarging room, also intend to place the photographic journals on the table of reading-room—your own journal taking a leading place.

I should like to mention, to show the increase of amateurs here, my newsagent informs me that the AMATEUR PHOTOGRAPHER has a good sale here, and that he books fresh orders every week. I myself have been a reader ever since publication; in fact, I believe I was the first to take it in this town, and I have introduced it to all that I knew who took up the art of photography.—I remain, etc.,

E. J. FIELDER.

16, Harold Road, Albert Road, Southsea.

\* \* \* \*

## CASES FOR HAND-CAMERAS.

SIR,—After a five weeks' tour abroad with a hand-camera, I have come to the same conclusion as a great many other users of these convenient machines, namely, that the leather covering with which most of them are covered is most unsuitable. The colour is liable to come off when wet, and the slightest touch injures the surface in an irreparable manner. The appearance also of a tourist carrying a black leather box or bag excites attention which is often annoying. At the same time, in many makes of detective or hand cameras, it is necessary to have some covering as a preservative against the influence of damp and the intrusion of light. I therefore venture to suggest to makers of detective cameras that instead of leather they should use black or dark-grey waterproof canvas. This would keep the woodwork perfectly dry, stand any amount of wear, and act as a preventive against light. At the same time the appearance of a tourist with a canvas bag would be nothing unusual, and many shots at present impossible would come within our reach.—Yours truly,

CHAS. EMANUEL.

\* \* \* \*

## EXCHANGE LANTERN SLIDES.

SIR,—I am requested by the Executive Committee to inform you that, owing to the impossibility of getting lantern slides passed through the Customs here without an exorbitant duty being charged, we are compelled to do without the pleasure of an exchange with you until such time as we can prevail upon the authorities here to pass them through free of duty. We arranged an exchange with the Chicago Lantern Slide Club a short time ago, and each association sent on by express same

day some sixty-six slides. The Chicago Club had to pay 7-75 dols. on our slides, and we had to pay 2-75 dols. on theirs; this, of course, will be repeated on slides being returned, making 21 dols. in all for duty and some 6 dols. in all for express charges. This is a little too expensive to be indulged in very often.

Regretting very much the necessity that prevents us, for the present at least, of carrying out our long-cherished desire of an exchange of slides with amateur photographic associations in England,

E. HAVELOCK WALSH (Hon. Sec.)

Toronto Amateur Photographic Association,  
corner Bay and Richmond Streets, Toronto,  
October 8th, 1890.

\* \* \* \*

## MR. DAVISON ON "HANDS OFF."

SIR,—I am sorry that Mr. Davison should consider it necessary to write so bitterly in his letter criticising my criticism. If everyone resented so strongly as he does the exercise of the critic's function, it would almost become necessary to suppress critiques altogether.

The lowly position he is pleased to accord me irresistibly suggests Ingelow's lines—

"Quoth the cedar to the reeds and rushes,  
'Water grass, you know not what I do:  
Know not of my storms, nor of my brushes,  
And—I know not you.'"

Even after Mr. Davison's tirade against me, I fail to feel "personal animus;" the article was written to call attention to what is considered to be a growing evil.

I of course accept his denial that his pictures have been worked up on the print: this denial does not, I presume, extend to No. 56, regarding which he is silent.

Excluding all that your correspondent writes concerning his own exhibits, his letter—which presumably states the case against my critique as strongly as it can be put—nevertheless practically, although not literally, confirms my contentions: to wit, (1) There is a good deal too much doctoring of prints at Pall Mall. (2) More stringent rules on the subject ought to be formulated and enforced by the Photographic Society of Great Britain.—Yours, etc.,

HANDS OFF.

—❦—

## The Present State of the Focus Question: Another View.

BY DR. P. H. EMERSON.

(1) NATURALISM does not consist in correct focussing only—that is but a help to true expression.

(2) The first to advocate, vaguely, "out-of-focus pictures" was Mr. Newton, the miniature painter, in 1856, in a paper read before the Photographic Society of Great Britain (vide Journal of that society).

(3) The first to put diffusion of focus into practice and to give it its most profound expression was Mrs. Cameron, who, in 1865, used a lens with outstanding chromatic aberration. Her work led to a hot and ignorant controversy, in which she took no part, and in which Mr. Robinson opposed her, calling her work "smudges," and laying down his dictum that definition was the function of photography. The controversy led Claudet to experiment, and the result of it was that "a certain amount of diffusion" was generally allowed to be admissible. This led Mr. T. R. Williams to ask, in 1874, the late J. H. Dallmeyer to make him a lens that would give this softness. Mr. Dallmeyer constructed his portrait lens for Mr. Williams, and the fact is recorded in his books, and has been publicly confirmed by his son, the able optician, Mr. T. R. Dallmeyer.

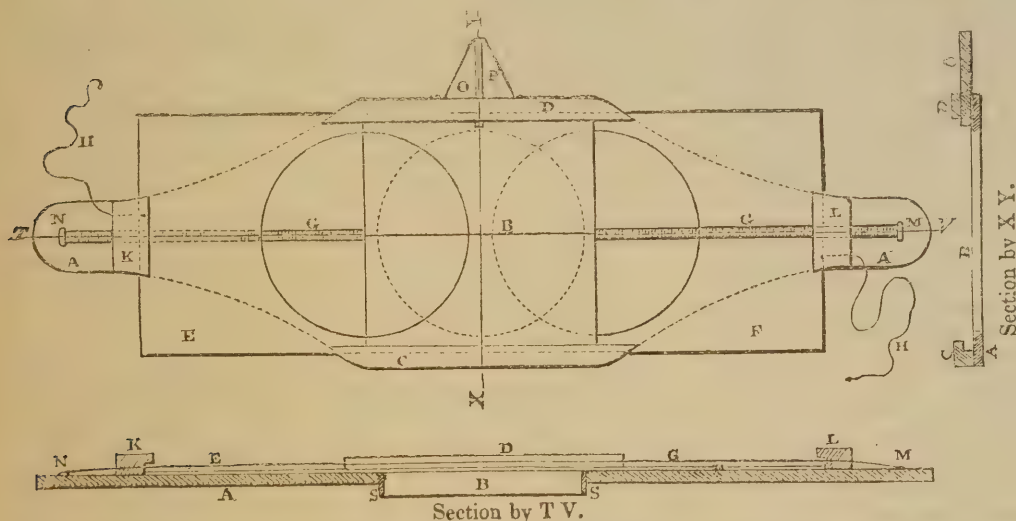
The next step was the publication of my Naturalistic photographs (some years BEFORE "Naturalistic Photography"). They attracted attention, and self-committed persons began to "hedge." I suggested first that pin-hole was a suitable field for experiment and for artistic work. I have since, after careful observation and experiment, found that they are



inadmissible, as is, indeed, any method by which *general softness* is produced. I will undertake to demonstrate this by experiment. So we are brought back to differential focus (my pronouncement) as the true and legitimate one.

(4) It is a matter of opinion whether I substantiated my statement that Mr. Robinson advocated "sharpness." I think I did, and I can prove it, and shall do so presently; he gave his adherence to *general softness for portraits* after others had shown him the advantages of general softening—to wit, Mrs. Cameron.

(5) If Mr. Davison does in certain cases advocate pin-holes, that is no proof that he has given up Naturalistic tenets, and if he were to give them up that would in no way affect them—they had already won the sanction of



THE FIRST SHUTTER.

**Description:** In a piece of wood *a*, a hole *b* is made, so as to fit on the exterior of the lens. On the two sides of *a* are two slips, *c* and *d*, of wood, so as to form a groove in which slide over one another two slips of cardboard *e* and *f*, having each a hole in the centre of the same diameter as the opening of the lens, the total length of each slip being equal to about two and a half diameters of the hole; to one end of each slip is fixed a piece *g*, of vulcanised india-rubber, and to the other end is attached a string *h*. Two small pieces of wood *k* and *l* are fixed on *a* in such positions that the slips of board being respectively drawn against them the lens may be entirely uncovered. In *k* and *l* holes are cut for the passage of the slips of india-rubber *g*, which are then fixed down to *a* in *m* and *n*, and also for the passage of the strings. At the side of *a* a square hole is cut, in which a key, *o*, of wood is inserted; over this key a strip, *p*, of india-rubber pressing it down on the boards. Two little pieces are cut out at *q* and *k*, so as to allow the wooden key to be pushed in, and keep the boards in position when the springs are fully stretched. To set the apparatus we need only pull the strings *h* till the boards touch the two stops *k* and *l*; the key *o* falls of itself in such a position as to keep the whole at rest, but immediately we lift up this key the two slips of board are restored to their original position, and the lens is again closed, after having been open for an excessively short space of time.

It will be remarked that the centre of the lens is the first part uncovered, and that the sides are the first part uncovered, so as to obtain the maximum of light in the minimum of time.

I have given the description of the apparatus, as any one can make it in a very little time and with very little trouble, but it is evident that it would be better if made of brass with metallic springs, etc.

the best of many of our young *painters* before Mr. Davison took them up, to discard them for a time and to resume them again. Mr. Sutcliffe, Mr. Coles, Mr. Valentine, Mr. Steiglitz and many other able photographers work on the differential focus principle. But I am sure Mr. Robinson's intention to play off Mr. Davison against me will fail—he tried it last year. Mr. Davison is more modest, and knows to whom credit is due more than Mr. Robinson thinks.

(6) As for the scientific aspect of the principle of Naturalistic focussing, that is now on an *incontrovertible basis*, and the reader is referred to my letters on the subject, and to Mr. Dallmeyer's writings.

(7) The "pin-hole" picture given in the *Photographic Quarterly* is misleading; the photo-etching has been worked upon to a great extent, and this very hand-work has been done to get the effect of differential focussing.

## Instantaneous Photography.

BY W. JEROME HARRISON, F.G.S.

### CHAPTER III.

#### EARLY APPARATUS FOR INSTANTANEOUS PHOTOGRAPHY: THE FIRST "DETECTIVE" CAMERA.

**The First Shutter.**—The first piece of apparatus by which a really rapid exposure could be given appears to be that exhibited by Mr. G. M. Levi at the December meeting (1853) of the London Photographic Society, and described (with an engraving) in the *Photographic Journal*, vol. i., p. 162. In this shutter the exposure was made by two pieces

of wood (or metal), each pierced by an aperture and actuated by springs or rubber, crossing one another in front of the lens. This contrivance, in its main features, has been re-invented many times since.

**Thomas Skaife and his "Pistolgraph."**—The first true hand or "detective" camera appears to have been that invented by T. Skaife,\* and patented—or, rather, the shutter thereof—by him on 10th June, 1856. This tiny camera was so named because it was "in size and shape not unlike a pistol—was held in the hand and manipulated by means of a trigger, like a pistol, one being constructed to take life, the other likenesses." The size of the complete instrument was only 4 ins. by 2 ins. The negatives (on plates 1 to 2 ins. square) taken with this predecessor of the "Kodak" were enlarged by the inventor to whole-plate size. Contemporary accounts speak well of some work done with the "Pistolgraph." At a

meeting of the Blackheath Photographic Society, for example (February, 1860), "successful examples of 'pistolgrams' were handed round, including a view of the last Greenwich election, a boat-scene on the Thames, and sundry pictures of dogs, horses, and children, the novelty and beauty of which elicited repeated expressions of admiration." The inventor succeeded in obtaining a picture of a shell shot from a mortar by the Royal Artillery at Woolwich. On one occasion he was arrested as an assassin, having been detected aiming his "Pistolgraph" at the Queen in the neighbourhood of Windsor.

\* See the *Times* for 14th July and 5th August, 1858. *Photographic Journal* for 11th December, 1858; 16th August, 1859; 15th February and 15th May, 1860. *Liverpool and Manchester Photographic Journal*, 1st September and 1st October, 1858. *British Journal of Photography*, 15th August and 15th December, 1860.



*Skaife's Lecture Experiment with the "Pistolgraph."*—At a lecture "delivered (June 8th, 1859) in Mr. Hogarth's picture gallery in the Haymarket to a highly select audience, Mr. Skaife called the attention of his auditory to two enlarged views of the nomination of candidates, taken by his pupil with the pistol camera from on horseback. In order to convey an idea to the audience how this was done, the pupil was directed to snap his camera at the skylight, where the figure of a man was perceived standing on the roof, which he did, and in less than one minute afterwards the resulting picture of the window, with the man behind it, was handed round to the astonished audience." Skaife sold his "Pistolgraph" at ten guineas each. He wrote a pamphlet entitled: "Instantaneous Photography: Mathematical and Popular," 1860; second edition, 1863. He says that his pictures are secured "in the twinkling of an eye," an operation whose duration he estimates at one-tenth of a second! Poor Skaife! he was "before his time."

*Sutton Patents; "An improved camera for instantaneous pictures."*—It may have been Skaife's example which led our old friend, Thomas Sutton, to patent,\* in 1861, a camera having a reflector inside at an angle of 45° (the focussing screen being of ground orange glass, and on the top of the camera), and placed in front of the sensitive plate. The exposure was made by raising the reflector and then letting it fall again. It seems to us that one or two inventors have in modern times patented very similar devices. Perhaps they will believe in the lines—

Full many a "tip," with tempting golden gleam,  
The volumes of the Patent Office bear.  
Hid there is many a poor inventor's dream:  
Go! dig them up, and patent them again!

## Photographing in Ice-land.—VIII.

### THE ROUND TRIP IN DETAIL.

It was at about 11.45 in the forenoon of July 14th that our cavalcade set out for the wonderful district—Thingvallir. We had a long journey before us, but we had got used to that kind of thing "entirely." Soon after starting we struck a tract of country complementarily called "a forest" in Iceland, but which is in reality an odd collection of dwarf birch and willow, not reaching more than six feet high. Not by the wildest stretch of imagination could we conscientiously fancy it a forest. But there were natives of Iceland with us, and out of consideration for their feelings we held our peace. And after all, it was a nice and pretty ride—something fresh—careering through this birch and willow, after our interminable experiences of lava beds,

bogs, and deserts. Some three hours' riding brought us to the Brúará, or Bridge, River, where we luncheoned and had rather "considerable" of a good time.

The Bridge River is presumably so called because of an uncommon bridge fixed in the river, but not spanning it. On the spot where the bridge is placed the Brúará during

Fig. 1.

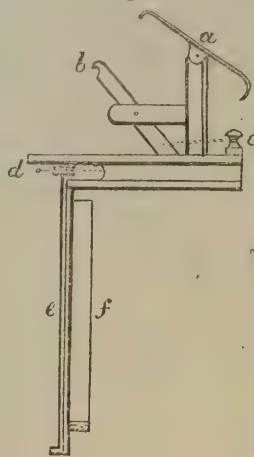


Fig. 2.

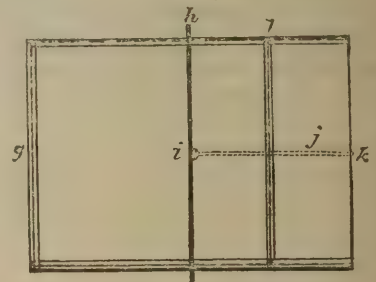


Fig. 3.

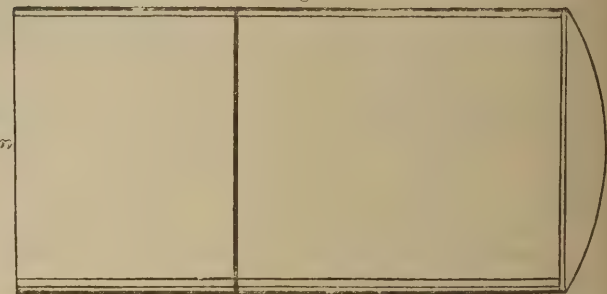
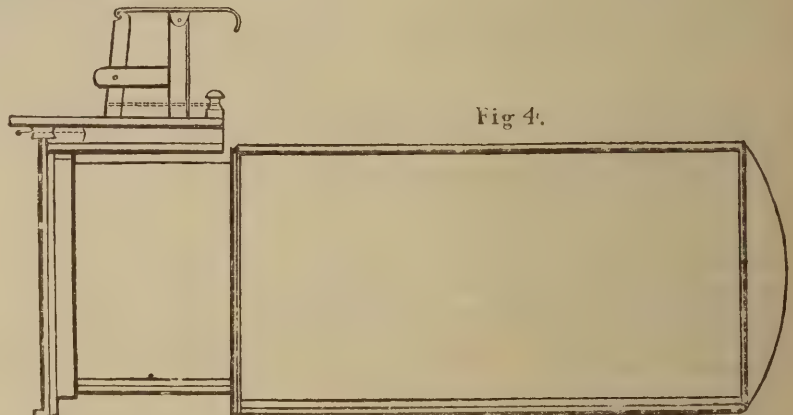


Fig 4.



### SKAIFE'S PATENT PISTOL CAMERA.

*Description:* Fig. 4 is an outline of the pistol camera, equal in size to the original constructed to photograph concave glasses 1 in. in diameter or under. It is composed of three parts, viz.—

Fig. 1, formed of brass and steel, contains a pair of patent shutters with opening trigger.

Fig. 2, the barrel, virtually the camera, contains the lens.

Fig. 3, the handle.

When in use figs. 1 and 2 are screwed together at *f, g*, and fig. 3 (the handle) is slid on to the barrel at *h*, until the open and hollow part of the handle *m* is stopped by the shoulder on the barrel at *h*.

*i* is a hook to which is attached an elastic band *j*, which serves to keep the concave glass in its place when focussed by the screw adjustment *l*.

*a* is a brass detent which holds the steel trigger *b* when distending the india-rubber spring hooked over the knob *c*. Light is admitted to the sensitized concave by pressing upon the curved end of the detent with the finger or thumb, allowing thereby the lower end of the steel trigger, or lever (impelled by the india-rubber spring), to strike a piece of brass to which a couple of silk threads are attached in connexion with the shutters' axes *d* in such a way that the trigger can only reach home by giving the required opening of the shutters *e*.

Unscrewing the pillar which supports the trigger a quarter of a revolution, leaves the piece of brass free to be manipulated by a finger when a very rapid exposure is not required.

\* 20th August, 1861, No. 2073.



the summer months is generally sixty or seventy yards wide, the water, except in mid-channel, being shallow. This hole, as I may call it, in the centre of the river bed, is wedge-shaped and very deep. The water converges towards it, surging into the crevasse in tons. The bridge—a few planks with hand-rails on each side—spans this rift, and across it travellers wade. That is, they wade across it sometimes, when the river is shallow enough for the undertaking; occasionally, during floods and high currents, the bridge is half-a-dozen or more feet beneath a swirling surging cataract; then it is safer and more comfortable, if less exciting, to ferry the Brúará some distance lower down the stream. The whole scene at the Bridge River is picturesque in the extreme. The broken-up river bed of lava, the bridge, and the mountains to the eastward bristle with “bits” both for the camera and canvas. Our artistic souls were roused within us, and out came lenses, plates, easel, paints, pencil, and note-book with one accord. I had almost to hold our artist down. He simply went “cracked” on those mountains to the east—perhaps he’s a nineteenth century wise man. But, to give him his due, the mountains were magnificent—colours and outline alike.

After crossing the Brúará, and in the middle of our afternoon ride, we stopped at a farm by Lake Laugarvatn—Hot Spring Lake—where the inevitable “skyr” and coffee were dealt out with a lavish hand. We all survived the “skyr”—perhaps because we were careful to lay in a superabundance of coffee with it. Then some of us went to sleep, while others made a pilgrimage to neighbouring hot springs, where they held high revel washing handkerchiefs and other “clothing.” Hot springs seem to bubble up everywhere in Iceland without the least provocation and with commendable consistency and accuracy. But we discovered one or two new features in connection with these particular hot springs by Lake Laugarvatn. The lake itself is as cold as—I was going to say “charity,” but I won’t; ice is cold enough for anything. Yet within a few inches of the edge of the lake hot almy sulphurous springs boil over quite playfully. One can’t quite understand why such things should be; but we were in Iceland, and in Iceland you soon get tired of asking conundrums, and accept the numerous phenomena as part of the show. The Lange party did, anyhow, and we were egotistic or idiotic enough to fancy ourselves about as good ensamples of British intellect and solid sense as could be picked up anywhere in the three kingdoms. Some of our friends, particularly those who have heard only garbled reports verbally of our expedition to Ultima Thule, may be inclined to contest this latter statement. Well, let them dare—that’s all.

Our last few miles from the curious hot-springs at Laugarvatn to Thingvallir lay across still another tract of lava—an enormous field of black, split up into gaping, ghastly earthquake rifts. The prospect was not pleasant at the time, and a retrospective view is not much more cheerful, nor is it calculated to inspire any very extensive confidence in the district. Galloping on the edge of and across these rifts suggests unpleasant contingencies. If a rider were thrown from his pony into one of these cracks, or were otherwise similarly compelled to interview them, he would simply have to pull his pencil and note-book out beforehand and—wait for the bump. I don’t know how long he’d have to wait; perhaps a century, perhaps only a few months. All the scenery in the vicinity of Thingvallir is wild—the kind of scenery that upsets the regularity of one’s breathing, and involuntarily wheels one round to see if there is a back way out. One feels that there is a probability of stepping off the edge of all this majestic and overawing confusion of heights and dales and valleys into boundless space and unutterable inky blackness. Getting to the lower ground, we

had to make a very steep descent. We were holding on each man to his pony, like glue, when a series of loud “Ho’s,” “Whoa’s,” and “Oh’s,” and a significant scrambling sound, caused us to face about; our leader and his pony had gone down—bang! Mr. Lange, who fortunately wasn’t seriously hurt, afterwards described this fall. The description is so graphic that it is worth reproducing. This is something like the recital:—

“Of course I had my camera slung on my back, worse luck, at the moment, gentlemen, I assure you. When the pony stumbled I was pitched, face first, in spread-eagle fashion. I had just bitten the lava once, and was about to look round for something softer, when my camera came full force on the back of my head, and necessitated me taking on one more helping. More than satisfied this time, I turned over somehow to get a clearer view of things, but just as I did so my pony began to get on its legs, using me in the performance as a kind of sure footing for its hoofs. But I was on my dignity by this time, gentlemen, I was, indeed I was. When that beast got its two front feet on my hest, I just lay down again—I did, although half a second before I had, unaided, scrambled to my knees. And I lay down until—until—until the doctor came and the whisky.”

We were all agreed that our leader was more than ordinarily tough to go through such a circus feat as that recorded above without grave injury. And more merit attaches to him because none of the business had been previously rehearsed. In all seriousness, though, photographing, shooting, fishing, excursions, and everything else in Iceland entails the ever-present danger of falling from ponies. These animals are the only means of locomotion, save or except pedestrianism, on the island. We often wished there were busses or hansoms or something else tolerably safe and comfortable. Vehicles would have saved us so much anxiety, pain, vaseline, and the rest.

We arrived at Thingvallir at about half-past ten at night, all of us dead tired. Roughly speaking, we had covered more than forty miles since the morning—pretty stiff miles, too. At midnight we had “dinner” at the priest’s house, three or four of the party afterwards turning into bed under the good man’s roof. The rest waited for the tents to come up, which they did somewhere about two o’clock. Then we all slept, I think, as we had never slept before—no, not even in Iceland.

Thingvallir is classic ground. Its equivalent in plain Saxon is “Thing-fields,” certainly not a name which conveys very much. It is a wild, rugged district, teeming with marvels of nature, and abounding in historic lore. Nearly a thousand years ago this spot, hemmed in as it is with surroundings terrible in their wild grandeur, was the meeting place of the House of Representatives, the Althing. Here is a disjointed line or two of interest:—

Grimr “Goatshoe,” foster-brother of Ulfrjótr, was directed to find a natural fastness, easily guarded, where the “National Assembly” could hold its meetings unmolested. “Goatshoe,” wise in his day and generation, and, judging by his selection of the “natural fastness,” a ‘cute gentleman to boot, hit on a rocky islet as the desired legislative ground, an islet in the midst of a sunken plain, broken off from the adjacent country by deep fissures and chasms, which at the time of selection were only passable in one place over rocky delvis. In the year 929, before photography was dreamt of on this “Thing-fields,” Ulfrjótr’s code was solemnly adopted as the law of Iceland. A few of our camera men had the temerity to wish they had had half-a-dozen snap shots at the first meeting of members, and that they could have transferred to a good lasting plate Ulfrjótr’s best deliberative smile when the Speaker of the House announced that the “ayes” had it.



## Automatic Photographs.

BY A. E. VENN.

At last, automatic photographs of the public are being taken, and as one of the first to be "took," I send the readers of the *AMATEUR PHOTOGRAPHER* a report of my experience of the operation.

So much public curiosity has been aroused, and I might add so much scepticism has been evinced in photographic coteries as to the practical working of the machines, that readers will, I know, be interested. The result, framed, and all for twopence, I have sent to the Editor, who will, I am sure, admit that the likeness is a very creditable one. It is certainly as good, if not a better production than many for which the itinerant touter charges 6d. and 1s.

Through the courtesy of the Manager, with whom I became acquainted whilst at Brighton, I was privileged to be the first of the public to put my penny in the slot—taking up a position about three feet from the lens, and opposite a small circular mirror. Immediately the penny dropped, the machinery was heard to work, and after about three seconds, during which I regarded myself in a small mirror, a bell rang to indicate that the exposure was complete. The machinery continued to "click" for about thirty seconds longer, and then ceased. Something was heard to



fall into a little receptacle on the left, and on lifting the lid my portrait, developed and fixed, but still wet, was disclosed.

I watched the operation subsequently for some time, and had many very good, and in some cases diverting, images produced. Occasionally there was a hitch in the action of the machinery, which was ultimately rectified by the machine being restored to a perpendicular position, from which it had somehow been displaced.

The day was an extremely dull one, and as duller days are to be expected and the exposure will presumably have to be prolonged, it would be advisable for the Company to have an adjustable rail over which one could lean. At present the height of the lens necessitates a little stooping with most people, a position in which it is almost impossible to remain steady without adventitious support. There is no doubt that the automatic production of a portrait is a practical and undeniable achievement; its financial success is a question that may properly be left to the shareholders.



"*AMATEUR PHOTOGRAPHER*," 1890, PRIZE LANTERN SLIDES.—Secretaries of Photographic Societies and others wishing to have the loan of the above slides must send in their application as soon as possible. Three optional dates should be given. The "Prize Slides" will number 160. A full printed description will accompany them, and they will, therefore, make an excellent evening's entertainment. Applications, with stamped envelope enclosed for reply, must be endorsed "Loan of 1890 Lantern Slides," and addressed to—The Editor, *AMATEUR PHOTOGRAPHER*, 1, Creed Lane, London, E.C.

## Our Contemporaries.

The *Photographic Art Journal*, speaking of the book "Names that we Love, and Places we know," says, "A charming little book of the birthday text-book type, daintily got up and nicely printed; it should form a most popular gift book amongst our amateur friends. A well-selected quotation from poetry or prose is attached to each day in the year, and a space opposite for the inscribing of a friend's name, thus combining a neat record of that day in the life of our friends when it most becomes us to remember them—their birthday—together with a pretty collection of literary gems. What distinguishes the book from all others of its class, and what will most recommend it to the photographer, is the provision made for introducing photographic scraps by way of original illustrations. Some dozen or so blank pages with a ruled margin are designed for this purpose; when nicely and cleanly filled with attractive bromide or platinum prints, will greatly enhance the value and increase the interest of the little book. Say, for instance, we spent a week this summer at a friend's house in the country; of course, we had our camera with us, and now that we have a little leisure, we prepare a few prints from the negatives we made, and putting them in the book, send such as a little token of regard to the lady or daughter of the house—there will, of course, be a print of the house itself, and one of the garden, or the tennis lawn, the occupants of the stable and kennel will have to come in for notice, as also, perhaps, some boating picnic or other arcadian pleasure which we recollect with much complaisance, several portraits, and a view or two. If the presentation of the little book with views complete does not result in further invitations, and the firmer welding of friendship, we should be surprised." Articles: "On the Distortion due to Lenses," "Sport on Breydon, Yarmouth," "The Photographic Image," "Plates for Collotype and Photo-Mechanical Work," "The Daguerre Memorial," etc.

*Wilson's Photographic Magazine*, in an article by T. C. Huston "On Exposure," says, "The amount of exposure absolutely necessary is dependent on the constitution of the latent image. If the change produced by the impact of the light on the sensitive surface be chemical, then it stands to reason that any exposure is sufficient, provided a developer of sufficient energy be applied. This is a very comforting theory, and, if correct, we may cease trying to force our plates to a sensitiveness that is already inconveniently great, and turn our attention to the production of a stronger developing agent. If, on the other hand, the change produced by the light is mechanical, a definite exposure is necessary to overcome the inertia of the sensitive coating. I myself think the change is mechanical. A reason therefore is that, while heat favours chemical action, the period of maximum sensitiveness does not correspond with the period of maximum heat. Again, on hot and damp days—what we call 'muggy' weather—when the developer works with almost uncontrollable energy, making the production of clear shadows a matter of difficulty, exposures must be lengthened, although the day be bright and clear. On this point, however, our knowledge is unmodified ignorance, and I bring to a close this contribution to the vast encyclopædia of what we don't know." Articles: "On Film Photography," "Operating Notes," "Aristotypy," "Lighting," "An Orthochromatic Photograph," "Does Good Work Pay?" etc.

The *Photographic Times*, in an article on "Composition and Arrangement," says, "The photographer must be satisfied with nature as he finds it, whether it is frowning or smiling he must be content; therefore if the subject is not in entire harmony with his ideas, if he does not enter into the spirit and give his thoughts entirely towards carrying out whatever story the picture is intended to illustrate, the result will be a failure. I would then say to the photographer, be satisfied with representing the character of your group and refrain when you have but indifferent material from trying to adorn a moral, or point a tale. It is also well to remember that a long course of study is as necessary for the photographer as it is for members of any other profession. The greatest painters, poets, and writers study the works and profit by the experience of men who lived in bygone years. They would not, or could not, reach the highest point of perfection if they had not done so. The works of men who lived away back in the ages which we call barbarous are eagerly devoured, and the creations of their hands and brains are studied by the great men of this and other generations, and why?"



Simply to gather material for the foundation of works which they expect to create. There are rules and reasons for everything, and unless men train themselves to go strictly according to the rules that govern their work and find out the reasons why such rules are applied to it, they cannot accomplish much; they will be toilers in the dark, stumbling and groping to the end." Articles: "Industrial Photography," "Chemistry of Fixing," "Fast and Loose," "Interiors," "A New Property of Gelatine," etc.

The *Camera*, in an article by Walter E. Woodbury on "Mounting Gelatino-Chloride Prints," says, "The more liquid the mountant the stronger its action upon the gelatine film. We will first, then, consider what course to adopt to mount the prints as they are taken off the glass. If we employ a gelatine mountant with as little water as possible it is evident that we stand less chance of spoiling the surface of the print. Take, then, 1 oz. of hard gelatine and soak it in water; squeeze all the water out of it possible, and dissolve. When dissolved, add 4 oz. of methylated spirit. If a large quantity be made, sufficient for some time, a small amount of carbolic acid should be added to prevent putrefaction. This mountant should be placed in small bottles, and, when required, a bottle of it should be placed in a little warm water until the contents are dissolved. With a stiff brush it should be rapidly applied to the back of the print, and the latter immediately adjusted to the mount, smoothed down with a soft, clean rag, and the whole laid away, face upwards, to the air to dry. On no account should these prints be laid one on another when mounting, as they will be liable to stick confused together in a heap." Articles: "Photographic Chemicals," "Some Churches in Northamptonshire," "Aluminium in the Construction of Photographic Mounts," "The Latest Additions to the National Gallery," "In Search of Pictures," "Dress and Drapery Suitable for Photography," etc.

*Anthony's Photographic Bulletin*, in an article on "Platinum Paper and its Development," says: "The only drawback to the use of this paper generally among amateurs appears at the present time to be the rapid and almost unheard-of increase which has recently taken place in the value of metallic platinum. The price of all its compounds has been correspondingly advanced. As an offset to this we have the results of Edison's investigations some years since in regard to the possible supply of the metal. He found, and so asserted in print, that the metal was fairly abundant, and that the production could be very largely increased under the stimulus of an increased and steady demand. It is to be hoped that this result may be speedily accomplished, for the new printing process is one which should be widely known and used, since it occupies a field altogether alone. Permanence, beauty, ease of application, vigour of print, convenience, speed, and a black-and-white tone, without the necessity of toning, are some of its advantages. Although not filling the whole of the requirements for a perfect printing process for amateurs, it has one of the largest lists of any process that has recently come into competition for the honours." Articles: "A Midsummer Flash," "Direct Positives by Development," "On the Reversal of the Negative Photographic Image by Thio-Carbonides," "Poisonous Properties of Uranium Salts," "Views Caught with the Drop-Shutter," etc.

The *Photographic Times*, in an article on "Outdoor Photography," gives the following instructions for making an effective apparatus for the purpose: "Make three frames out of white-wood or pine, using strips 2 in. wide and  $\frac{1}{2}$  in. thick, each frame to be 4 by 6 ft. Cover one frame with light gray cloth on one side and medium dark on the other. This is for the background. Cover another frame with light gray on one side and black on the other, and the third frame with dark gray on one side and white on the other. Hinge the three sections together with webbing so that they will fold either way, putting the section covered with the light and medium dark gray cloth in the centre. Make a frame of the same size and cover with white, and use this for the top of the studio, of course having it detached so that it can be moved backward or forward when the studio is set up. The frames can be put together with iron corners, which can be got at any hardware store. By having it made with hinges so that it will fold either way the lighting of the face can be controlled easily and great variety obtained. Any material can be pinned to the middle section and used as a background, from white to black, and either plain or figured. In fact, there is hardly a limit to what can be done with this simple device, and most excellent portraits can be made. As the light is very strong in

the open air, medium small stops can be used, and quick exposures made, so there is no necessity for using a head-rest." Articles: "Photographic Silhouettes," "Industrial Photography," "The Chemistry of Fixing," "Orthochromatic Photography," "Fast and Loose," etc.

The *Review of Reviews* says: "The photographic interviewer is coming to the front. Our large metropolitan dailies now photograph a man's gestures while he is being interviewed, and from the negative process blocks are made which are printed with the report, rendering increased interest in the interview. Photographing lightning flashes, cloud effects, and meteorology, of drops of water while descending, of the effects of electrification of jets of liquid, of cannon and rifle balls in their flight, of wave-sounds produced by the human voice, photographing the bottoms of oil wells, and, at the depths of the blue sea, discovering the condition of wrecked vessels, etc., all go to show that photography is progressively advancing in all directions."

## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

MR. WILSON NOBLE, M.P., presided last week at a most interesting meeting of the Club, and though the attendance was somewhat limited, the members present made up in attention and appreciation for what they lacked in numbers. At the beginning of the business Mr. Maskell showed a "Claude Lorraine" mirror, which he said would be most useful for judging the values of a view. Mr. Charters White had also seen one of the mirrors, and said it would be very useful for the purpose mentioned, at the same time intimating that he had long felt that the use of a pale-blue glass for the focussing screen would be of considerable advantage in the same direction. Mr. Maskell also showed a little instrument for attaching to the front of the camera; it contained six apertures, varying approximately from the one-hundredth to the one-twentieth of an inch in diameter; a most useful appliance for those who desired to try pinhole photography.

Mr. Lyonel Clark was then called on for his paper with reference to "Platinum Toning." He said that his remarks would be more of the character of a few notes than of a set paper, but it must be admitted that those notes were of the most important nature. Since his original lecture, he had tried some of Arnold's unbleached paper, supplied by Reeves and Son, and was very pleased with it; it appeared to be purer than Whatman's paper, and free from the specks of metal which were such a nuisance. In his book he spoke a good deal of using arrowroot in the salting solution, but further experience had led him to think that it was better to always use gelatine, as the bath could then be used several times, and there was less likelihood of variation in its composition, the difficulty being to get the same kind of arrowroot twice. The gelatine could be used again and again, so long as it set in a jelly on cooling. He generally used eight grains to the ounce, and in very bright weather even six grains; he also now used the simple chloride bath instead of the ammonia-citrate bath, but for very vigorous prints he still used the latter. He would remind them, however, that the salting solution should be used as hot as possible, and to keep it hot it might be placed in another dish containing boiling water. In salting stiff papers he used a camel-hair brush with some of the solution before floating, and it was a good thing to leave the paper in a somewhat damp place over-night. It was necessary to be very careful that the solution did not get to the back of the paper, or the result would probably be the spoiling of the print. In silvering the paper the great difficulty was insufficiency of nitrate. The nitrate must be in such quantity that after combination with the chloride there was silver in excess.

Now came the great feature of the evening, when Mr. Clark gave some further details as to the process of intensification of prints to which he referred in his original lecture. The process is very simple, and it possesses an advantage which is likely to bring it into great favour with those who are tired of the comparatively restricted number of tones procurable by the old processes, namely, that by means of it any tone from sepia, through all the browns, to absolute black. Intensification can be pro-



ceeded with either before or after toning, or without toning at all. On the other hand, they may be toned and intensified several times over (here Mr. Clark showed a number of intensified prints, some of which had been toned with gold, some with palladium, and some not at all. Iridium would not tone at all). The strength of the intensifying bath seemed to have little or no effect, beyond the fact that more or less silver made the bath quicker or slower respectively. The bath is a very simple one; it consists of a little nitrate of silver acidified with acetic acid, to which was added as much pyro as would cover a farthing, and enough water to cover the print. In the first place the paper is put under a negative and printed to half the usual density; it is then washed, and, if desired, toned, and washed again, put in a clean dish, and flooded with the intensifying bath. When the requisite colour is obtained it is removed from the bath and again well washed and fixed, and a final washing completes the operation. It is a curious fact that the lighter the tone desired for the picture, the deeper must be the original print.

Mr. Clark then proceeded to demonstrate the process. He took a half-printed picture which had been well washed, toned it fully with palladium, washed it again, and then flooded it with a bath consisting of: 2 oz. of water, 20 drops of acetic acid, 5 or 6 drops of the nitrate of silver solution which he used for sensitising his paper (60 gr. of silver to the ounce). The result was a pleasing brown, and though the lecturer got considerably chaffed because the process of intensification proceeded farther than he intended, and the shadows got somewhat blocked, it was evident that Mr. Clark has opened up to photographers a range of colour which they never before possessed. He claimed that although the prints he treated might not be so permanent as those secured by the Platinotype Company's process, they were more permanent than ordinary silver prints, as his process deposited on the print pure metallic silver.

In answer to questions from the Rev. F. C. Lambert, Mr. Clark said he had no difficulty in getting exactly the same tone any number of times with the same negative. The process could be used locally by means of application with a brush.

Proceedings concluded with a vote of thanks to the lecturer.

Thursday, October 30th, will be a lantern evening. Meeting at 8.30 p.m.

## Vienna Photographic Society.

THE first monthly meeting was held on the 7th inst., President Volkmer in the chair. Professor Dr. Eder gave a lecture on "The Use of the New Jena Baryt-glass for Making Lenses." Not only new types were created, but the old lenses gave more brightness. The triplet shows no reflected picture in the middle. Dr. Eder exhibited Tinsler's flash-light, permitting a great number of successive flashes. A paper was then read by Mr. Rinole on "Correcting Density of Plates during Development." He leaves the plates in the hydroquinone developer until the sky comes out, interrupts the proceeding by washing, lets the water run off, and with a brush dipped in a solution of potassium bromide runs over those parts of the picture which are beginning to solarize, and thus stops development at will. After two minutes, the plate is again carefully washed and the development is continued. Distant mountains and clouds, strong light in the foreground, parts which nevertheless become too compact are reduced in the same way by potassium ferricyanide and hypo. This part of the work is done on a table, the plate of which is of glass, receiving its light by a mirror at an angle.

On the walls a number of prints were exhibited, as, for instance, an aquarel-heliogravure, by Haufstaengel. This firm has a simplified autotype process which is carefully kept secret, but the *Photographische Correspondenz*, 1889, page 706, contains hints.

The effect of this "pigmentdruck" is surprising. Particularly noteworthy were large heliogravures, the delicacy of which reminded of collotype. Mr. N. V. Angerer exhibited very beautiful instantaneous pictures.

Professor Luckhart, the Hon. Secretary, gave notice of the forthcoming international photographic exhibition, which will be arranged by the Club of Amateur Photographers next spring, and took the numerous pictures expected from England as the starting point for some flattering observations concerning English photographic art,

## Science Notes.

THE latest detective camera is the "Neck-tie," which is the invention of M. Edmond Bloch, of Paris. As the name implies, it is a light and flat metallic camera which is concealed under a large necktie, of which the lens forms the pin. It contains six plates, each about  $1\frac{1}{2}$  in. square, and the lens is arranged to take portraits at a distance of two or three feet. The shutter is set by turning the top button of the waistcoat; and it is discharged by means of rubber tubing connected with a bulb which is carried in the trousers' pocket. *La Nature* states that portraits taken while talking with one's friends, by means of this Neck-tie camera (and without their knowledge) are quite recognisable. This instrument is being perfected, and has not yet been placed on the market.

Mr. G. Krikorian, of Jerusalem, must be a clever man, for he has "managed somehow to procure an entrance, or at least to get his camera admitted," into one of the most sacred interiors of the East, the sacred shrine of Haram, at Hebron, which stands over the cave of Machpelah. The photograph, which is a very good one, is reproduced in the *Illustrated London News*, for 18th October.

Turning over an old volume of one of the photographic periodicals the other day, I came across a notice from Dr. Liesegang recommending the use of green glass as an aid to printing. This is the notion which has recently cropped up again; but I have not seen any acknowledgment of Liesegang's priority in the matter. In photography it is exceedingly difficult to be original.

Half the stains and markings seen on the surface of negatives could be prevented by giving the surface of the film a good "swabbing" under the tap with a pad of cotton-wool after washing or treating with any liquid. Ordinary water is commonly full of minute impurities which cling to the gelatine, and which when the negative is dry—causes its surface to feel rough. The cotton wool removes these, and leaves a smooth glossy surface. Negatives which have been intensified should receive an especially careful rubbing.

Great preparations are being made for the Lord Mayor's Show this year, and with that famous showman, Mr. Augustus Harris, of Drury Lane, as one of the High Sheriffs, we shall expect something very much out of the common. Given a fair afternoon, and it is pretty certain that more plates will be expended on the procession than in any previous year. At this season we strongly recommend Isochromatic plates for street work. The atmosphere of our large towns is now decidedly yellow, and this seriously affects the sensitiveness of the "ordinary" or not colour-sensitive plates.

A faint ray of hope for the lovers of platinum prints comes across the "herring-pond" from the States. The rise in the price of metallic platinum has been caused chiefly by the extended use of the noble metal for electrical purposes, coupled with the fact that the existing mines are but few in number, and are believed to have formed themselves into a syndicate. But Mr. Edison, of electric light fame, has taken up the question, and declares his belief that there are many new localities where platinum can be profitably mined, and that the present high price of the metal will lead to these being speedily "prospected" and worked.

Looking back through the thousands of patents which have been taken out in connection with photography, I can only find one for a "toning solution," but that is sufficiently curious to be worth noticing. It is dated 21st March, 1860, and was taken out by W. E. Newton on behalf of J. C. Rutherford and B. H. Steele. This "toner" consisted of a mixture of "corrosive sublimate (mercury bichloride), tartaric acid, sal. soda (*i.e.*, carbonate of soda), hydrochloric acid, and distilled water. After well mixing, allow to stand for forty-eight hours, then filter and use." The prints were *not* to be washed before immersion in the solution, and the effect was said to be "instantaneous." It was also claimed that the "colours are permanent;" but this is just what we should expect them not to be. No proportions of the different ingredients are given, but, perhaps, some one will experiment with this strange toning-bath and let us know the result.

F. G. S.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity, only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BELFAST CAMERA CLUB.**—On the 15th inst. a special meeting was held to hear the lecture "Illustrated Boston," Mr. William Strain presiding. In his introductory remarks he explained the nature of the lecture, and by whom it was originated, and suggested that the Society should get up a set to illustrate their city. There were between two and three hundred in attendance, who much appreciated the views and descriptive remarks.

**BLACKBURN AND DIST. PHOT. SOC.**—Under the auspices of the Blackburn Photographic Society, Mr. E. M. Tunstall, Secretary to the Liverpool Photographic Society, lectured on the 16th inst., in the Exchange Assembly Room, on "Normandy." The lecture was illustrated by some capital photographs, which were exhibited with the aid of a lantern. The lecture was interspersed with vocal and instrumental music by several well-known local artistes. Major Baron presided, and there was a good attendance. The postponed annual meeting will be held on October 28th, for the election of officers, etc.

**BRIGHTON PHOT. SOC.**—A meeting was held on the 13th inst., Mr. Douglas E. Caush in the chair. Mr. Geo. Foxall read a paper and demonstrated "The Carbon Process of Printing." The demonstration was followed with much interest, and a discussion ensued. A fine collection of prints, lent by the Autotype Company, were on view. Specimen prints on the new Celerotype paper were also shown. A cast of the Society's medal was shown, and met with general approval, the design for same being very chaste. On October 28th Mr. Caush will read a paper on "Failures," and on November 11th the second annual lantern-slide competition will take place.

**BURY PHOT. AND ARTS CLUB.**—The annual meeting was held in the Temperance Hall, Bury, on the 15th inst.; the President, Mr. Wm. Booth, in the chair. After the routine business, the election of officers for the ensuing year took place, when the following were unanimously elected:—President, Mr. Wm. Booth; Vice-Presidents, Mr. F. Cooper, Mr. W. S. Barlow; Council, Messrs. E. W. Mellor, Robt. Grundy, jun., R. Smith, W. Spencer, and J. Ward; Hon. Secretary, Mr. Roger Wood, Bolton Street, Bury; Hon. Treasurer, Mr. J. T. Newbold. Arrangements were completed for the annual exhibition to be held from October 28th to November 3rd inclusive. Lantern exhibitions will be given each evening. The Liverpool Am. Phot. Assoc. have promised loan of "Illustrated Boston" set of slides for October 29th and 30th. The Rev. F. E. Waldie will exhibit slides on the 31st inst., and Mr. E. W. Mellor will lecture on Saturday, Nov. 1st, on "Normandy," illustrated by slides from negatives taken by himself.

**EALING PHOT. SOC.**—The meeting on the 16th inst. was a lantern night. About 100 slides were shown, including 12 (local, etc.) by the President, 24 (Shakespeare's house, etc., at Stratford-on-Avon) by Mr. Whiting, and miscellaneous views by Messrs. Amery, Dunn, Brooks, etc. Mr. Taylor enquired as to the difference in colour of some of the slides developed with hydroquinone. Mr. Whiting explained that it arose from variations in the quantity of bromide used, or from variations in the exposure, a longer exposure giving warmer tones. It was announced that Mr. Whiting would read a paper on "Lantern-Slide Making" on Nov. 6th.

**GREAT YARMOUTH AND DISTRICT PHOT. SOC.**—Under this title a camera club has been formed in the town for amateurs and professionals, through the efforts of several gentlemen interested in the art of photography. Mr. H. D. Arnott, Gorleston, has been appointed President, Mr. H. Harvey-George Hon. Sec., aided by a committee of six. All rules and details have been settled, and on the 15th inst. a large number of persons were present at the inaugural meeting at the Town Hall, when a programme of songs interspersed a most interesting lantern lecture, the slides being lent by the Liverpool Amateur Photographic Association. The Mayor presided. Mr. H. D. Arnott then delivered his presidential address, in which he pointed out the benefits and the great use of such societies, and said up to the present they had no society nearer than Norwich, which was too far off to be of practical use.

**HOLBORN CAMERA CLUB.**—A meeting was held on the 11th inst.; Mr. E. Bayston, in the chair. The chairman exhibited one of Messrs. Adams and Co.'s new Presto hand-cameras. Mr. T. O. Phillips and Mr. H. T. Culliford having been proposed as new members, Mr. Edward Dunmore read a paper on "Odds and Ends of Photographic Practice," which was followed by an interesting discussion. The usual weekly meeting was held on the 17th inst., Mr. T. O. Dear (Vice-President) in the chair. Two members having been elected, Mr. E. Thorpe read a paper on "Photographic Chemicals, their Uses, Tests, etc." He said he had brought together a few hints on the various photographic chemicals, their mode of preparation, a few sample tests for each, and their different uses. He thought that every photographer should know something about the chemicals which passed through his hands. He then detailed the numerous chemicals in their order, specially referring to the use of mercury for intensifying negatives, and a new substance, guaiacol, which he thought would supersede hydroquinone as a reducing agent. A short discussion followed.

**LEICESTER AND LEICESTERSHIRE PHOT. SOC.**—A meeting was held on the 8th inst., Mr. J. T. Cook (Vice-President) in the chair. It was resolved that a conversation be held on the 26th November, in the Co-operative Hall. A few specimens of Kallitype, sent by Messrs. Lewis, were on view. Mr. F. Pierpoint gave a demonstration on the "Platinotype Process," which was closely followed by the members, and proved most interesting.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—The ordinary meeting of this Society was held on the 17th inst., Professor Lambert in the chair. There was a large attendance to witness the demonstration "Lantern Slide Development," by Mr. M. Stodart, who opened the proceedings by exposing and developing with hydroquinone, one of Thomas's lantern-slide plates. Mr. B. Davidson (the Secretary) followed, using one of Fry's, and developing with pyro and ammonia; and Mr. E. Eastwood showed a third method, ferrous oxalate being the developer, the plate Thomas's. The demonstrators fully explained the processes they were working, answering numerous questions put by various members. The next evening is fixed for November 7th, when Mr. S. J. Castle will give an exhibition of lantern slides from negatives of views, etc., taken in Normandy.

**MORLEY AND DISTRICT AM. PHOT. SOC.**—A meeting was held in their rooms on the 15th inst., the President (Mr. Atkinson) in the chair. The minutes of the previous meeting being read, the Chairman read his paper on "Negative Development."

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES PHOT. ASSOC.**—On the 14th inst. the ordinary meeting was held in the Mosley Street Cafe, Newcastle, Mr. J. P. Gibson in the chair. The subject of "Halation and Backing Plates" was opened by the Chairman, who said that he had not seen reason to change the opinion he expressed two years ago, that black paper smeared over with glycerine and squeegeed into contact with the plate, was the easiest, and at the same time a practical method of avoiding halation in nine cases out of ten. In extreme cases he would pin his faith to the method of Mr. J. Hedley Robinson, viz, deep black mixed in gum water and alcohol. A discussion followed. The AMATEUR PHOTOGRAPHER Travelling and Studentship Competition photographs were on view, and they were considered far superior to anything previously sent out from the same office.

**NORTH LONDON PHOT. SOC.**—The general meeting was held on the 7th inst., Mr. Traill Taylor in the chair. The Secretary announced that the four negatives provided by Mr. Mackie for the Lantern Slide Competition early in next year were now ready for circulation among the members. This competition has been taken up with spirit among the members, and promises to be a very interesting one. Each member is to make slides with or without clouds, by any process, from the negatives provided by Mr. Mackie, and these will be exhibited side by side upon two screens, the body of members themselves being the judges as to the best production. The lantern of the society was then brought into requisition; a number of slides made by the members were shown.

**NORTH MIDDLESEX PHOT. CLUB.**—At the meeting on the 13th inst., Mr. Rodgers gave a lecture on "Pictures of Egyptian Life," and illustrated the same by the optical lantern. On Monday next, 27th inst., Mr. Bishop will lecture on "Stereoscopic Photography."

**PAISLEY PHOT. SOC.**—On Tuesday, the 14th inst., this Society opened the winter session with a lantern exhibition in the Lecture



Hall of the Free Library and Museum. There was a large attendance of members and friends. About 150 slides were shown on the screen, including some fine views of Paris, Switzerland, etc., belonging to Mr. Craig. Messrs. Mure, Rastall, Kilpatrick, Morrison, Thomson, Dresser, Taylor, and Jack also contributed slides. Many of these were the result of the summer's work, and being local views, and yachting scenes, proved very interesting, and were highly appreciated by the audience. The members afterwards adjourned to the Committee-room, when, after consideration, it was agreed to hold an exhibition of photographs, etc., in the picture gallery during February.

**SHEFFIELD AND DISTRICT OPTICAL LANTERN SOC:—**The usual monthly meeting was held on the 15th inst., Mr. Copley presiding. Mr. P. Slater gave a very interesting lecture on "Lantern-slide Making and Transparencies for Window Decoration," with demonstrations, using Thomas' plates with hydroquinone developer. His remarks were highly appreciated by the members, of whom a good number were present. After the lecture a short discussion took place.

**SOUTH LONDON PHOT: SOC:—**At a meeting held on the 17th inst. Mr. Leon Warnerke was unanimously elected an honorary member of the society. The President, Mr. F. W. Edwards, gave a demonstration of the method of using "Alpha Paper," Mr. Warnerke occupying the chair. Mr. Edwards, who had brought with him a large number of exposed prints, proceeded to develop them before the members. He strongly recommended anybody using this paper to mix the solutions strictly according to the formulæ issued with the paper.

**TOYNBEE CAMERA CLUB.**—Thursday, October 16th, was a lantern night, when a set of slides loaned by the AMATEUR PHOTOGRAPHER were passed through the optical lantern, the President giving an interesting description of same. During the evening a number of prints by members were passed round for inspection. On Thursday, November 20th, a demonstration on Alpha paper will be given by the Britannia Works Company.

**WEST KENT AM: PHOT: SOC:—**At the ordinary meeting at Station Hotel, Sidcup, the President, Mr. Andrew Pringle, was in the chair. There was a good attendance. Several gentlemen were proposed for membership. The general business having been gone through, "Enlargements" (AMATEUR PHOTOGRAPHER Competition) were then viewed, some of which were much admired. The lantern entertainment commenced by Mr. Dresser passing through the lantern some very fine instantaneous work taken in 1-300th part of a second, including his splendid wave studies, followed by slides by Messrs. Court, Fry, jun., Clare, Jones, and Hawkins. Mr. Court's eclipse of the sun was very clear and distinct, and quite a success, considering the difficulties it was taken under. The remainder of the evening was spent in showing the slides kindly lent by the AMATEUR PHOTOGRAPHER, and which were very much appreciated. Pamphlets of Messrs. Mawson and Swan were handed round. Next meeting will be held at the Board Room, Bexley, on Wednesday, October 29th, at 8 p.m. Mr. A. R. Dresser will lecture on "Lantern Slide-making," with demonstrations.

**WEST LONDON PHOT: SOC:—**At the adjourned annual meeting on the 17th inst., the President (Mr. C. Bilton) in the chair, the following officers were elected for the ensuing year: Mr. Walter Adam Brown, President; Messrs. C. Bilton, G. F. Blackmore, Walter L. Colls and Dr. F. H. Low, Vice-Presidents; Messrs. England, Horton, Richardson, Scanlan, and Whiting, Council; Mr. J. A. Hodges, Hon. Sec.; Mr. L. C. Bennett, Assistant Hon. Sec.; Mr. W. H. Whitear, Hon. Treas.; Mr. J. Wilson, Hon. Librarian; Mr. R. Horton, Hon. Lanternist; and Messrs. H. and L. Selby, Hon. Auditors. A general discussion took place relative to the drawing up of the syllabus, in the course of which Mr. Whiting expressed the opinion that it would be advantageous to hold technical meetings more frequently than hitherto. Mr. Hodges concurred in the view expressed by Mr. Whiting, but considered that the success of a technical meeting depended very much upon the members themselves. If the objects in view were supported by a larger number of exhibits being brought, a good practical result would be assured.

**WIGAN PHOT: SOC:—**Two meetings of the above newly formed society have been held this month, one on the 9th and the other on the 16th inst. There was no business to transact at the first one, but several gentlemen brought prints, etc., for exhibition. At the meeting on the 16th inst. the Rev. G. F. Wills, M.A., presided. The first business was to decide upon a name for the Society. The "Wigan Photographic Society" was the only one proposed. It was therefore unanimously agreed to. The amount of member's subscription was, after some discussion, fixed at half-a-crown. The following gentlemen were elected a Committee: Revs. J. S. Barnes and G. F. Wills, and Messrs. G. R. Newman, H. Wragg, O. Platt, H. Varley, and J. Smith. It was also resolved that meetings be held once a fortnight, on Thursday evenings, every alternate one to be devoted to exhibitions of members' work. Specimen copies of the AMATEUR PHOTOGRAPHER and *Photographic Reporter*, kindly sent for distribution by the publishers, were afterwards handed round by the Hon. Secretary. The two prize pictures, "On the Goyt" and "Norfolk Homes," published in the *Reporter*, were greatly admired by all who saw them. The Society has been fortunate enough to secure St. Michael's Church Schools wherein to meet, on very reasonable terms, and the next meeting will be held there, on the 30th inst., at 2.30 p.m.

## Notes from the Liverpool Centre.

(By our District Editor.)

THE attendance at the Liverpool rooms for the first practical demonstration of the present session was large and influential. Mr. J. A. Sinclair, one of our best workers in lantern slides, was the demonstrator. His excellent discourse and experiments were followed with lively interest, and some interesting points were afterwards discussed. Mr. Sinclair touched on the best method of showing pictures, treated of the reducing in the camera, and said that more artistic studies were secured by showing as much of the negative as was possible. He showed three slides in different colours by the same developer, subsequently developing

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot: Soc: of Great Britain ... ..	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
.....	Manchester.	Sept. —.	Jan. —.	O. G. Virgo, Art Gallery, Manchester.
Bury Phot: Arts Club ... ..	Bury	Oct. 28.	Nov. 3.	Roger Wood, 190, Bolton Street, Bury.
Wolverhampton Phot: Soc: ... ..	Wolverh'ton.	Nov. 10.	Nov. 15.	J. W. Evans, 52, Darlington St., Wolverhampton.
Edinburgh Phot: Soc: ... ..	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Tunbridge Wells Am: Phot: Soc: ... ..	Tunbridge Wells.	Nov. 26.	Nov. 29.	Joseph Chamberlain, 14, Calverley Park Gardens, Tunbridge Wells.
Phot: Soc: of India ... ..	Calcutta.	Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Ventnor, I.W. ... ..	Ventnor.	Jan. 19.	Jan. 24.	W. Hoskin, Lit: and Sci: Institution, Ventnor.
Liverpool Am: Phot: Assoc: ... ..	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Gloucestershire Phot: Soc: ... ..	Gloucester.	April 17.	April 27.	A. H. Clinch, Bank Buildings, Southgate Street, Gloucester.
Vienna Club of Am: Phot: ... ..	Vienna.	April 30.	May 31.	Carl Srna, VII., Stiftgasse 1, Vienna.



several studies by eikonogen, metabisulphite of potash, and washing soda respectively. The results were highly creditable. In reference to "dirty skies," the lecturer went into local reduction, and advocated the ferrous cyanide of potassium and the hyposulphite of soda process. Painting over with a good camel's-hair brush would be found to answer most satisfactorily. Mr. Sinclair was accorded a hearty vote of thanks for his able lecture, the vote being passed with acclamation.

A crowd of about 600 turned up at the Liverpool Young Men's Christian Association last Thursday, to hear Mr. Paul Lange's "Norway." A similar measure of success attended the "Hundred of Wirral" lecture at Litherland on Tuesday. Mr. Lange superintended the "screen" department, and Mr. John Hargreaves was the lecturer.

Three silver and four bronze medals are offered by the Birkenhead Association in the annual prize competition, pictures for which must be sent in not later than November 10th, to the Honorary Secretary, Mr. C. B. Reader.

Dr. Kohn's lecture at the University College, Liverpool, on Tuesday was:—"Composition and Properties of Water; Hydro-

gen Peroxide, Nitrogen; the Air." As I have pointed out, this series of lectures is in connection with the "Chemistry of Photography."

The President of the Liverpool Society goes to Glasgow on the 11th November to give a lecture before the Glasgow Amateur Photographic Society.

One of the Liverpool members succeeded in getting a fine negative of a wreck in the Mersey during the recent gales here. The study has been enlarged and makes a remarkably interesting picture.

In reference to the 1891 Exhibition, I may say that two Court photographers—one in the Russian interior and the other in Germany—have applied for space. They each intend sending a number of exhibits.

Messrs. Archer and Son's new lantern is presumably going to take the very front place, in this meridian, at all events. The go-ahead firm have now got all their improvements on the improved lantern complete. They have contracted for the supply of a stipulated number.

The demand for "Under the Midnight Sun" is very large.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4263. **Italy, etc.**—Will someone give me full particulars as to whether it is possible to photograph in the following places without permission, and if not, where to get the permission: Rome, Naples, Venice, Pisa, Pompeii; also if a hand-camera is allowed, not near forts?—**CHARLES BELL.**

4264. **Mounts.**—Will someone kindly inform me why the gloss, obtained by squeegeeing prints on to glass rubbed with French chalk, completely disappears after mounting? What would remedy this? Should prints be dried on the glass by the fire?—**D. J.**

4265. **Black Tones.**—Will anyone kindly tell me how I can get good black tones? I use the following, but I find the prints do not change their colour for over half-an-hour, and when they do they are a dirty colour:—

Acetate of soda	...	...	...	30 gr.
Water	...	...	...	8 oz.
Gold solution	...	...	...	2 drms.
Hypo. of soda	...	...	...	$\frac{1}{2}$ lb.
Warm water	...	...	...	1 quart.
Liq. ammonia	...	...	...	20 drops.

—**PERCIVAL KEENE.**

4266. **Burnisher.**—Is Sutcliffe's a thoroughly reliable burnisher for pictures up to panel size? If not, will someone kindly recommend me a better make?—**M. ST. M.**

4267. **Lubricator.**—What is the best lubricator for silver prints? Is Castile soap and methylated spirit better than the ready-made paste?—**MORIAN.**

4268. **Enlarging.**—I should be glad to be informed by any readers who have had practical experience with enlarging and optical lanterns (oil), whether one adapted for enlarging from, say, quarter-plate to 13 by 10, will equally well light up the image when thrown on a screen, and enlarged to

9 ft., i.e., using an enlarging lantern as magic lantern? Also, whether in using a magic lantern for enlarging, the slight image of the flame projected on to the paper (bromide), shows at all on development; if so, is there any precaution by which it can be avoided? I have used a magic-lantern to throw a 12 by 10 image, and saw image of flame, but did not develop.—**LANTERN.**

4269. **Kodak, No. 3.**—I am thinking of purchasing a No. 3 (quarter-plate) Kodak, and should be glad if any of your readers will inform me whether (1) the camera is a satisfactory one taken altogether, (2) whether there is much difficulty in developing the films, provided the full instructions are carried out, (3) whether the finders show an exact picture of what is taken, and (4) whether much trouble is entailed by cutting off the exposed films before the whole spool has been exposed?—**GOOD WORKER.**

4270. **Dust on Lantern Slides.**—Will any reader who has had experience in such matters be kind enough to suggest a practical way of keeping off dust when colouring lantern slides? To go into an absolutely pure room is impossible; but every precaution is taken; in vain, however.—**COLOURIST.**

4271. **Vignetting Portraits.**—I wish to vignette, by painting the negative on glass slide. Will anyone give me a good medium, and how to use it?—**T. B. W.**

4272. **Dark Spots on Alpha Paper.**—Can anyone tell me how to avoid dark spots on Ilford Alpha paper? I first expose to a bright flame on a fish-tail gas burner, at a distance of about 1 ft., for time given in directions issued with the paper. I then take it into yellow light, as recommended, and, after soaking in water, I develop with Thomas's iron developer, the spots making their appearance during development.—**A GROVES.**

4273. **Screw v. Rack.**—Which is the best and strongest adjustment (for focussing) of the above?—**HALF-PLATE.**

4274. **Burnishing.**—I have some trouble burnishing my prints. Some of my prints were scraped off the mounts the other day. If I let them get dry I cannot get any polish on them at all; nothing but a few scratches. Will someone kindly help me?—**HALF-PLATE.**

4275. **Copying and Enlarging.**—Where can I find the best instructions for the making of a camera for this purpose? Is Lancaster's Multum-in-Parvo suitable for this work?—**W. W.**

4276. **Loan of Negatives.**—Will anyone kindly lend me any negative, or negatives, suitable to illustrate the "Life of Charles Edward Stuart, the young Pretender"? Loans will receive most careful usage, be duly returned, all carriage paid, and I shall be deeply grateful.—**C. (address with Editor).**

4277. **Wanted, a Photograph of the Middlesex Hospital.**—I should like a photograph of the building, or a negative.—**J. C. GOODALL.**

## QUERIES UNANSWERED.

Oct. 3rd.—Nos. 4217, 4218.

10th.—No. 4229.

17th.—Nos. 4239, 4241, 4250, 4251, 4253, 4254, 4260, 4261.

## ANSWERS.

3989. **Toning Formula.**—Ordinary lime water or liquor calcis, to be obtained at any chemist. Too much trouble to prepare in small quantities; it is very cheap.—**ALETES.**

3995. **Chloride of Cadmium.**—About 1s. per oz.—**ALETES.**

4020. **Brooklyn.**—Too cheap.—**ALETES.**

4027. **Lens Testing.**—*Vide* recent prize paper on "Optics."—**ALETES.**

4277. **Lens Testing.**—See an article by Mr. Evershed in No. 313.—**THE SMITH.**

4061. **Effervescence in Developer.**—Your sur-

mise is correct, and is what would be expected.—**ALETES.**

4066. **Enlarging Camera.**—Both capable of doing good work, if properly used.—**ALETES.**

4089. **Amber Varnish.**—Proportions from Wall's "Dictionary" are:—

Amber	...	...	...	6 lb.
Oil of turpentine	...	...	...	4 gal.
Oil of linseed	...	...	...	2 "

You can reduce quantities to suit your purpose.—**ALETES.**

4089. **Varnish.**—Sandarac, 90 parts; turpentine, 36 parts; oil of lavender, 10 parts; alcohol, 500 parts.—**THE SMITH.**

4100. **Masks.**—Most dealers keep the paper you want under the name of needle paper. Write Fal-lowfield.—**THE SMITH.**

4100. **Masks.**—At R. Adams and Co., Aldersgate Street, E.C.—**ALETES.**

4116. **Stanley's Actinometer.**—This gives quality of light at time of exposure. It is used shaded from direct rays of sun; *vide* instructions in Stanley's catalogue.—**ALETES.**

4124. **Recovering Silver.**—This is best left to the refiner. To prepare the solutions, etc., for sending to the refiner, consult Wall's "Dictionary."—**ALETES.**

4125. **Mr. Robinson's Developer.**—It would necessitate the addition of a trifle more alkali.—**ALETES.**

4136. **Express Train.**—Take *Punch's* advice, and "don't." If you must, photograph it when still in a station.—**ALETES.**

4139. **Express Train.**—The most successful photograph of a train at full speed is little, if any, better than the picture of a train at rest, and I do not think your shutter is fast enough for that.—**THE SMITH.**

4137. **Blisters.**—Use water at ordinary temperature, and add a little salt to the first washing water after toning. This, with an avoidance of handling and creasing the prints, should do away with your trouble.—**THE SMITH.**

4137. **Blisters.**—I should say the cause was the lukewarmness of the baths, etc. I have never yet had a blister in any paper I have used, and always use solutions cold; also am careful to place from toning bath into common salt bath, then into hypo bath, and gradually wash the hypo out by means of running water.—**ALETES.**

4143. **Lens.**—Do not get a portrait lens unless you intend to do nothing but portrait work. Rather get a R.R., such as Optimus, or Vever's, or Tylar's, if you want a very cheap one; but in lenses, the best is the cheapest, so should recommend a Wray or Taylor, or Chambers.—**ALETES.**

4149. **Aristotype Paper, Permanency of.**—More permanent than albumenised, but not as permanent as platynotype.—**ALETES.**

4149. **Aristotype Paper, Permanency of.**—Gelatin-chloride prints are not as permanent as platynotype, but are certainly more so than prints on albumenised paper, if the operations of washing and fixing are performed thoroughly. This is largely due to the fact that the image in the finished print is formed almost entirely of gold deposited in the toning bath.—**THE SMITH.**

4150. **Deadening Background.**—If not too large, you might sand paper it. This is if you do not want to repaint it.—**ALETES.**

4151. **Stage, Photographing a.**—Should advise you to consult a book published by Marion on "Flash-light Photography," if you do not mind laying out 10s. It can be seen at the Exhibition in Pall Mall. You would want several lamps arranged in the wings on each side, quantity of powder according to kind of lamps used. Never mind the footlights, they would help illumination to a certain extent.—**ALETES.**

4152. **Porcelain.**—Do you mean the pictures on



opal sold in fancy shops? These are mostly made by the carbon process, but Eastman's transferotype will give quite as good results.—THE SMITH.

4152. **Porcelain**.—Contact, or by enlargement or reduction.—ALETES.

4153. **Flash-Light**.—*Vide* answer 4151. You could make several flashes in various parts of the room, of course taking care that the flashes are not in the field of the lens. Use a screen between lens and light.—ALETES.

4154. **Borax Bath**.—Consult "Experimental Photography."—ALETES.

4157. **Reference Wanted**.—I cannot trace letter. The salt named is feeble in its action than ferrous sulphate, but aqueous solution keeps better;  $\frac{1}{2}$  oz. is equal to 1 oz. of ferrous sulphate.—ALETES.

4161. **Shutter**.—If you do not want a very rapid one, say from  $\frac{1}{16}$ th sec. sky, and  $\frac{1}{32}$ th sec. foreground, the Leeds is a good one. It is sold by Reynolds and Branson. Tylar's window is cheaper and slower. It is an advantage to have longer exposure given to foreground.—ALETES.

4161. **Shutter**.—Tylar's rebounding shutter is sold for a very small sum, and is very useful for most landscapes, especially if the foreground is rather heavy. In such a case it is a distinct advantage to give the foreground a longer exposure than the sky.—THE SMITH.

4163. **Instantaneous Work**.—Nothing equals Lange's. It is:—

Washing soda	...	...	2 oz.
Amm. bromide	...	...	20 gr.
Boiled water	...	...	16 oz.

For quarter-plate, take of above solution 2 arm., water 1 oz., and dry pyrogallol 3 to 5 gr.—ALETES.

4168. **Transparencies, How to Mount**.—Do not cover the whole window. Either get a carpenter to make a grooved framework across window to slide them in, or a more elegant way is to employ the frames sold by most dealers, and suspend from window frame. It is better to employ a method such as above; by so doing you can change the transparencies for others.—ALETES.

4172. **Stains on Prints**.—This reads like hypo having by some means reached the prints before toning; or they may have stuck together in the hypo bath, so that the hyposulphite silver was not dissolved out.—ALETES.

4174. **Tinting Photographs**.—Nothing equals the application of the tongue to the prints before applying the colours. Sometimes a little ox-gall mixed with the colours answers.—ALETES.

4179. **Hydroquinone Formula and Bromide Paper**.—The following answers, but one solution is not to be recommended:

Hydroquinone	...	...	90 gr.
Sulphite soda	...	...	2 oz.
Carbonate soda	...	...	2 "
Distilled water, to	...	...	10 "

Dilute with five times quantity of water for use. Use perfectly clean dishes; a trace of pyro is fatal. After fixing, clear in alum and hydrochloric acid solution.—ALETES.

4179. **Hydroquinone Formula and Bromide Paper**.—I have always obtained good results with Thomas's formula, as given by Mr. Croke on page 263.—THE SMITH.

4180. **Eastman's Transparent Film**.—Smell is due to a certain substance used in the manufacture of the film.—ALETES.

4186. **Time Shutter**.—The Paget Plate Company will test your shutter; 5s. is, I think, the fee. It is difficult to do it satisfactorily yourself.—ALETES.

4188. **Time Shutter**.—Nothing much better or simpler than to fasten a small silvered bulb (such as are hung on Christmas trees) to a bicycle wheel, which is made to revolve twice in a second, as it is photographed in sunlight. The arc described by the bulb during exposure will be plainly seen on development, and can be measured by a protractor. Have a dark background.—THE SMITH.

4191. **Elkonogen**.—Should be kept from the slightest trace of damp. After closing the bottle, the cork should be smeared all over and round with warm wax. Some I have been in my possession eight months, and has not deteriorated.—THE SMITH.

4191. **Elkonogen**.—Yer, it deteriorates. It keeps in solution if an excess of sodium sulphite is present.—ALETES.

4192. **Tungstate Soda Toning Bath**.—Yes, to both your queries.—ALETES.

4193. **South Kensington**.—What light do you propose to employ? Have you any permission from authorities?—ALETES.

4195. **Stains on Silver Prints**.—If due to hyposulphite of silver, the cause is insufficient fixing, or too weak a hypo bath.—ALETES.

4196. **Lantern Screen**.—Should advise you to consult some dealer, or you may get some hints from the "Book of the Lantern."—ALETES.

4197. **Drayton Developer**.—Composition unknown. It is made and sold by a non-advertising dealer in, I believe, Broad Street, E.C.—ALETES.

4198. **Portrait Lens**.—The distances given are the least at which a standing figure can be conveniently placed on that particular size of plate. You will find that the longer-focus lens requires a greater distance, and that if two lenses of equal focal length, the one that covers a "cabinet" can be nearer the subject

than one that only takes "carte" size. Of course, portraits can be taken at less distances than those stated, but great care must be taken to guard against gigantic hands and enlarged noses.—THE SMITH.

4201. **Machinery, Lantern Slides of**.—I have looked through two or three lists, and cannot find any. You might send a query to Chatham Pexton, 22, Gray's Inn Road, London, W.C., or Archer and Sons, Lord Street, Liverpool; W. Tylar, 48, Waterloo Road, London, S.E.; R. G. Wood, 74, Cheapside, London, W.C., who all have extensive lists.—ALETES.

4211. **Intensification**.—Yes; sodium sulphite first intensifies and then reduces. It needs carefully watching. Bromide makes no difference, in my experience.—ALETES.

4212. **Enlargement**.—This is a late answer, but your data are so vague that I can only say you must first test on small strips of bromide paper, as described over and over again in articles on enlarging.—ALETES.

4213. **Blarritz**.—I think it very improbable that you will get Ilford plates, or any others, in Blarritz. It is but a small place. I tried to get English sizes there during the winter of 1887-88, but could hear of none, either there or in Bayonne. Carriage, however, from England is cheap, by sea to Bordeaux. Use in January the exposures given by Burton in February, and so on; personally, I consider it but a poor place for photography.—G. B. W.

4215. **Syphon**.—Do you mean a filter? Take a glass funnel, or make one out of note paper, place in the narrow end a piece of absorbent cotton wool, and push fairly tight, then pour varnish into funnel, having first placed it into the bottle, narrow end in mouth.—ALETES.

4215. **Syphon**.—You can get a glass funnel from any chemist, and if you plug the tube with clean cotton wool it will filter your varnish much better than a syphon.—THE SMITH.

4215. **Syphon**.—A simple, cheap, and effective apparatus for filtering varnish may be obtained from A. J. Banks, Manufacturing Photographic Chemist, 43, Frechold Street, Fairfield, Liverpool.—EXCELSIOR.

4219. **Liesegang's Aristotype Paper**.—Yo do not give your toning bath formula.—ALETES.

4219. **Liesegang's Aristotype Paper**.—Do your toning and fixing in a very weak white light, or by gas light.—THE SMITH.

4222. **Diagrams and Pictures on Enamelled Iron Signs**.—This is a patent. Consult the Patent Office Records.—ALETES.

4224. **Hand and Ordinary Quarter-plate Camera Combined**.—"The Model," reviewed on page 399, vol. x., AMATEUR PHOTOGRAPHER. I fancy Sharp and Hitchmough, of Liverpool, also make one.—ALETES.

4225. **Name Wanted**.—Ask any dealer who sells them.—ALETES.

4231. **Studio**.—You will find full particulars in "Photography as a Business," by H. P. Robinson, which is in the press; or "The Studio, and What to Do in It," from the publishers of the AMATEUR PHOTOGRAPHER, price 2s. 6d.—ALETES.

4233. **Camera**.—The one you mention will do very well for a beginner.—THE SMITH.

4233. **Camera**.—The best of the cheap sets; but get a more rigid stand. The shutter is detachable.—ALETES.

4234. **Scratches on Burnishing Bar**.—Unfortunately, this is very common, especially in the burnishers used by amateurs, usually due to dust, or the roller scraping the bar. They are difficult to avoid.—ALETES.

4235. **Walking-Stick Stand**.—Several of the London dealers stock this. Try Stanley, or Adams and Co., or Fallowfield.—ALETES.

4235. **Walking-Stick Stand**.—I have to thank several friends for answers to my query on the above subject. I will now give "R. G. C." my experience. On the whole, I consider Fallowfield's far the best stand; it is very steady, very quickly put up, is something like a walking-stick, but a very heavy one. Horne, Thornthwaite, and Wood sell a stand which is like a very heavy umbrella, and makes a high stand. Mawson and Swan sell a stand which is exactly like a walking-stick, and not very heavy, but it takes some time to put up, and does not appear very steady. Fallowfield's stand, when closed, is about 3 ft. long. It opens to a rather short but very steady s.—G. H.

4236. **Negatives, Scum on**.—You cannot have sufficiently washed after fixing, although you say you have, as I have experienced the same thing only on negatives I have had to finish off against time, and which have consequently not been sufficiently washed. Groups, and, indeed, all portraits should be taken in a diffused light, rather than in the dark shade. If a very bright day, under conditions named, about 3 sec.—W. A. J. CROKE.

4236. **Negatives, Scum on**.—Possibly due to some impurity in the washing water; if crystals, I think must be owing to insufficient washing at one stage or the other. Second part of query, not quite sufficient data, but I should give such an exposure as would over-exposure and develop cautiously to prevent hardness.—ALETES.

4237. **Stops**.—Roughly,  $f/12.4$ ,  $f/16.2$ ,  $f/22$ ,  $f/33$ .

If the largest required 1 sec. the next would require  $\frac{1}{2}$  sec., and the other 3 sec., and nearly 7 sec., respectively.—ALETES.

4238. **Thin Negatives**.—Develop much longer, and use less ammonia to start with, adding it gradually. The plates I do not know, but should imagine they require to show all detail on back before development is complete.—ALETES.

4240. **Rapidity of Lenses**.—Practically they are all the same rapidly when working at same aperture; theoretically the single lens having less reflecting surfaces, should be a trifle the quicker.—A. R. F. EVERSHED.

4242. **Uniform Standard Stops**.—The only book I can call to mind at the present time is Wormald's "Exposure Book," which gives a table to exposures and a card to measure your stops.—W. A. J. CROKE.

4242. **Uniform Standard Stops**.—Square the  $f$  number, divide the result by 16; this gives the U.S. No. Example:— $f/8$ ,  $8 \times 8 = 64$ ,  $64 \div 16 = U.S.$ , No. 4.—A. R. F. E.

4244. **Varnish**.—Soak the positive for an hour in methylated spirits; then, whilst still in the spirit, rub the varnish gently with cotton-wool.—ALETES.

4244. **Varnish**.—To remove varnish from positive, soak in methylated spirit, keep dish rocking; gentle rubbing with cotton-wool will help.—LENTICULUS.

4245. **Mounting**.—Starch is the very best mountant you can use for photographs. You must be very careful when putting the prints on the mounts. As soon as you have placed the print on the mount, you should put a piece of white paper over it, and press, or else run the squeegee over it. I shall be very pleased to answer further questions.—ALF.

4245. **Mounting**.—I advise you to use good starch paste, cold. Lay the prints face downwards on some clean paper, apply this paste with a brush, and, after allowing prints to remain in this condition a couple of minutes, they are ready to be placed on the mounts, and pressed down with a clean cloth.—JIM.

4245. **Mounting**.—Starch is the best and most reliable mountant. You will find full directions carefully written out if you turn to No. 213, p. 281, dated November 2nd, 1888, in the form of an article entitled "A Few Hints on Mounting Silver Prints."—W. A. J. CROKE.

4243. **Plate-Holders for Hand-Camera**.—G. V. J. Porin gives a description of plate-holders for hand-camera in 1890 "British Journal Photographic Almanac," p. 584, which is very easy to make, and cheap.—WILLIE.

4247. **Lens for Football Match**.—Your query is rather vague. Do you intend taking them as a group, or while they are playing? You should use, if for the latter, a good instantaneous lens, wide-angle preferred; if the former, an ordinary landscape or portrait lens would answer your purpose.—W. A. J. CROKE.

4247. **Lens for Football Match**.—Use a rapid rectilinear or Euryscope lens.—JIM.

4247. **Lens for Football Match**.—If you want to obtain an instantaneous photograph I am afraid it will be difficult to do so of such a subject on a November afternoon. You might try an Euryscope lens working at  $f/8$ , using full aperture and Ilford red label, or Paget xxxxx plates.—ALETES.

4248. **Spotting and Retouching**.—This requires a considerable amount of practice, I should advise you to obtain any of the books on retouching. A list can be obtained from the publishers of the AM: PHOT.—ALETES.

4249. **Hypo Stains in Bottles**.—Strong nitric acid; also ask any housekeeper how the wine stains are removed from decanters.—ALETES.

4249. **Hypo Stains in Bottles**.—Try washing in boiling water with strong soda. If this will not remove it, try acid; if not successful, then nothing will remove it.—W. A. J. CROKE.

4249. **Hypo Stains in Bottles**.—A little sulphuric or nitric acid will remove hypo stains from bottles.—JIM.

4252. **Photographic Society**.—Write to either N. P. Fox, Secretary, North London Photographic Society, 2, Princess Terrace, Primrose Hill, N.W., or Geo. R. Martin, Harringay Granary, Green Lanes, N., the Secretary of the North Middlesex Society.—ALETES.

4255. **Toning Aristotype Paper**.—Wet thoroughly before putting in. It need not be dripping, but fairly saturated.—LENTICULUS.

4255. **Toning Aristotype Paper**.—The trouble you complain of occurs more or less with all gelatin-chloride papers, and is due to the paper not being sufficiently strong. I have not, however, on any occasion lost a print through the curling. Care, of course, is required, and occasionally unrolling the prints in the toning bath will sufficiently ensure regular toning. I have been using lately a new paper called "Oelerotype," which, I believe, is somewhat of the same nature as Aristo, and I have very little trouble with it. The paper seems much tougher, and although it sometimes curls a little, it is much easier to work, and the results are greatly superior to the Aristo. The toning is extremely rapid, and with the tungstate bath I can generally get blue-black tones in less than five minutes. The acetate bath is rather slower, requiring nearly a quarter of an hour.—JIM.



4255. **Toning Aristotype Paper.**—If "Bradburn" will write me through Editor, I shall be pleased to give him my experience with the above paper. I am able to get a splendid colour, and they never curl in the bath. I will also send bath I use, and a toned and untuned print, with particulars of working.—WILLIE (address with Editor).

4256. **Studio.**—See answer to 4231.—ALETES.

4257. **Orthopanactic Lens.**—An average lens, cost of half-plate 50s.—ALETES.

4258. **Matt-Surface Paper, Toning.**—Tone depends upon negative rather than upon the constituents of the toning solution. I have obtained sepia tone in ordinary borax bath, also in bath made as follows:

Bicarbonate soda ... .. 30 gr.  
Distilled water ... .. 10

Add 1 gr. of gold for each sheet of paper to be toned. Wash prints before toning in weak solution of common salt.—ALETES.

4258. **Matt-Surface Paper Toning.**—I recommend you to try the toning bath given by Mr. Lyonel Clark in his book called "Platinum Toning," p. 25. This is published by the publishers of the AM: PHOT. I have, however, obtained very beautiful results on matt-surface paper with a tungstate and acetate bath.—JIM.

4259. **Aristotype Paper.**—Your fixing solution is too strong; 2 oz. of hypo to 20 oz. of water is quite enough. The purple black tones are best with the following bath:—

Tungstate of soda... .. ½ oz.  
Chloride of gold ... .. 4 gr.  
Water ... .. 20 oz.

It is most important that the prints should be immersed in the alum bath both after toning and fixing. There is a new paper called "Celotype," manufactured by the Blackfriars Photographic Company, Surrey Row, Blackfriars Road, S.E., which I have tried, and I find it much easier to handle than the Aristotype. It does not curl up nearly so much, it tones more rapidly, and does not seem to lose at all in the fixing bath.—MACGREGOR.

4262. **Touring.**—The best guides for the counties named are, I consider, those published by Stanford, Cockspur Street, at 2s. each, being concise and portable.—G. J. JONES.

4262. **Touring.**—"Stanford's Guide," published at 2s. each; you will find suit your purpose.—ALETES.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

R. V.—Thank you for the cutting; evidently a misprint.

T. J. HUGHES.—The shutter is not in the market. You will see a shutter somewhat similar in construction in this issue. See "The First Shutter," article upon "Instantaneous Photography." We will forward a letter if you send it.

E. H. K.—We know nothing of the firm; have never seen their cameras; but should advise you to go to some well-known firm.

G. K. F.—Your letter shall be laid before the author.

LEO.—In both you have too strong a top light; your background is at fault. For vignetting you require a special shape, which you can obtain of almost any dealers. As it is not difficult to make, procure a piece of cardboard, cut out to the shape desired, and serrate the edges. The lighting of the subject is at fault; it has been much too strong; possibly in direct sunlight. You will do well with whatever camera, etc., you buy of the firm named. We consider the result astonishing with the apparatus you now have.

P. E. B.—Lens received; will report to you later on.

E. L. CRAWLEY.—We should have thought the 10-in. lens worked at a larger aperture. Have you mislaid one of the stops? Your calculations are practically correct.

F. S.—The "Optimus" Baryscope works at f/8.

E. W. MALE.—Your negatives have been found and returned. The lack of density is due to want of care in developing. You might intensify, and, as the negative is so thin, must judge the exposure in printing on bromide paper carefully. Prolong it by introducing opal or ground glass between negative and the gas flame. The prints you send are really very fair. Have you tried a silver print off the negatives? You might do better.

BERNARD ALFIERI.—Very sorry; too late.

C. J. DAVIES.—We are arranging for the series of articles named in your kind letter.

W. P. WALKER.—The prints you send are very convincing as to the latitude of pyro and ammonia

in your hands. We retain the prints, as we are sure they will interest many of our callers. Your letter appears in another column.

IGNORE.—The term f/8 means the focal value of the stop, viz., a stop 1 1/8 in. in diameter, with a lens of 10 in. focus, would have a focal value of f/8. See "Wall's Dictionary." Stopping down increases the depth of focus, necessitating longer exposure, and is frequently resorted to in landscape photography. In portraiture it is customary to work with a large aperture.

JOSEPH LEICESTER.—Many thanks for your letter. We have a very good opinion of the plates named; but your letter is in too much the form of an advertisement for publication in our correspondence columns. We have forwarded it to the makers.

A. GROVES.—You can, we believe, purchase Sax or Rives' albumenised paper from any photographic dealer, at from 6s. to 4s. 6d. per quire.

S. STAMP.—Thank you; we will reproduce the picture.

HECTOR MACLEAN.—Hardly ever at Creed Lane, Wednesday, but will make an effort to be there on the date named.

W. B. READING.—The first part of your letter sustains the concluding paragraph. The best work, and the best only, take our prizes, be the competitor rich or poor. On your own showing, yours did not stand much chance.

H. RENDELL.—The print has been mislaid, if it turns up we will forward to you.

JAMES BLACK.—Your photograph, "A Roadside Well," is reproduced in "Holiday Work," and we have retained the print.

ALF. CAVARRA (Malta).—We will do as you wish, directly the lens is received.

J. HARRIMAN.—The photograph, "Windsor Castle," is reproduced in "Holiday Work," and the print is retained. The book is now published, 1s. 3d., post free.

MISS FAITHFUL.—The photograph of children is reproduced on title page of "Holiday Work" and is retained. The Pall Mall Exhibition was opened at the end of last month.

DUN CAMERON.—We are blocking your drawing, and shall publish as soon as possible.

T. B. BEDDOW.—A: the makers can best answer this question. We should advise plate D. B is an excellent burnisher. The prints are best burnished after mounting.

G. ROBINSON (Antwerp).—You must send us at an early date, three optional dates, when you can use the 1890 AMATEUR PHOTOGRAPHER slides, and we will try and let you have them. We have no "prize slides" at present on loan.

JAS. J. TALMAN, JUNR.—There are no books upon "Photography in Natural Colours." The best article upon the subject is to be found in the *Photographic Quarterly*, vol. 1, No. 4. (Hazell, Watson, and Viney, Ld., 1s. 6d.)

J. A. WATSON.—We will lend you fifty slides for exhibition at "Temperance and Charitable Meetings;" you will have to pay carriage and packing fee of 1s.

T. O. MANSON.—You must keep strictly to the conditions set out in the entry form for the "Lantern Slide Competition." We cannot think of passing an opinion upon the suitability of the slides you propose to send in. Entry form has been sent you.

RAPID.—We know nothing of A; we should place the lenses B C D as you have them, and should recommend for your purpose an R.R. lens.

W. H. SHAW.—Celluloid films are now to be bought that will give results equal to those obtained on glass, and the negatives are, as a rule, excellent printers.

W. TYLER.—You should have the light from the north, if possible, for a studio, but before you commence to build be careful to know that your neighbour has no objection, and that the District Surveyor approves your plans. Building, in London, even photographic studios is attended with much difficulty.

CESTRIA.—Certainly the R.R. lens if of fixed focus, although the single lens or the particular camera you are going to buy will cover the plate and give good definition.

INEXPERIENCED AMATEUR.—(3) Best to make up your own developers; that named will be found useful when travelling for developing trial negatives. (6) These plates are much thought of. (9) In our opinion, nothing better than a toy.

J. L.—"Experiment 1 Photography" (Leaper), or "Photography for All" (Harrison), both published at 1s., and to be bought of the publishers of the AMATEUR PHOTOGRAPHER.

BLANCHE.—Use pot yellow, or orange glass. If not, use the ruby, then yellow fabric and a sheet of clear glass in front of it. You will not be able to paste the fabric on to the glass.

T. MORLEY BROOK.—Distinctly "Inland Scenery, Landscape," therefore enter it in No. 18.

W. R. LAWSON.—Will test paper and reply next week.

YELLOW JACK.—If the prints before mounting, the stains are due to inferior mounts and chemicals used in the manufacture of them.

W. P. HIGH.—After fixing the high lights become

almost clear glass in a good negative. There does not appear to be anything unusual in what you say, except that possibly your negatives are much under-exposed. Send one up, and we will tell you what is the matter with it.

J. W. MACEY.—Your work shows considerable promise, and you should not hesitate to enter our competitions.

H. D. K.—Much over-exposed, and, we should say, printed in direct sunlight.

WILLIE.—They are both very creditable; No. 2 is certainly first, and toned to a very good colour. Why not squeegee on to ground glass and get rid of the glaze? We keep the prints.

THE SMITH.—Thank you very much for answers; also letter on Hikonogen, which will be read with interest. You have succeeded admirably, and made a lovely picture of the glen.

JIM.—You do not say what stop you used. The print is hard, and certainly under-exposed. It is not legitimate to pick out the detail as you have done. The pose of the sitter is very fair; the head slightly strained. We return the print.

E. P. HALL.—You can, of course, advertise the potassium platonic chloride in Sale and Exchange Column, three words a penny; best way of disposing of it.

THOS. BORTON.—Will report when camera comes to hand.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ld., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2 1/2 per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ld. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 1d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer."—AMATEUR PHOTOGRAPHER, 163 numbers; 4s. 9d. the lot.—Frank, 63, Gayhurst Road, Dalston.

Banjo.—Handsome 5-string banjo, splendidly plated hoop and fitting, ivory keys, walnut and ebony inlaid handle, perfect tone and condition, leather case, suit lady or gentleman; cost £5 10s.; price 55s.; approval.—Miss Henry, 4, West Brixton, S.W.

Battery.—Large-size, 6-cell Bunsen battery, flat porous cells, good zincs; 11s.—Burdett, Eastgate, Lou'ch.

Bicycle.—Kangaroo bicycle, sound, but shabby; sell 80s., or exchange quarter camera set.—Davies Fairfield, Bridgwater.

Cameras, etc.—Whole-plate patent camera (mahogany, with leather bellows), in excellent condition, new a few months ago, double extension, reversing and swing-back, rising front, two double dark-slides and carriers, 3-fold tripod; owner buying smaller instrument; cost 112s.; sell 84s.; willingly send on approval; deposit.—Benjamin Roberts, Athlone.

Wanted to exchange, half-plate Instantograph, 1886 pattern, and four mahogany double slides, new, for whole-plate, same pattern, or later design, with cash difference.—B. Roberts, 12, Thornhill Terrace, Wortley, Leeds.

Cameras, Lenses, etc.—Whole-plate camera, conical bellows, rising front, reversible back, three double dark-slides, 9 by 7 R.R. Optimus lens, tripod, leather case for camera, cost nearly £20, price £12, a



bargain; also Newman's shutter, to fit lens 8½ by 6½, price 20s.—T. L., 11, Eton Villas, Crown Hill, Harlesden.

Half-plate mahogany bellows camera, with folding tailboard, two double dark-slides, and Lancaster's half-plate Instantograph lens and shutter; price 36s. the lot, cash; warranted perfect.—Pick, 69, Avondale Road, Peckham, London.

Half-plate Lancaster's Instantograph camera, lens, shutter, three double slides, and tripod, modern pattern; 80s.—D., 8, Clifton Street, S.W.

Sands and Hunter's whole-plate Tourist camera, three double slides, Dallmeyer's R.R., Forrest's Duo-Ratio shutter, with adapters, Shew's changing box, extension front, view-meter, sliding stand, leather knapsack case, all good condition; cash offers requested, or exchange 10 by 12 portable set.—D., Woodside, Crookham, Newbury.

Quarter-plate Tortoise camera, lens, and double slide; cost 50s.; will take 27s.—Clarkson, St. Helens, near Bishop Auckland.

Dark-Slides.—Three half-plate metal dark-slides, with adapter to fit Instantograph, scarcely used; 10s.—Bate, Melton Gillingham, Dorset.

Hand-Cameras.—Fallowfield's Facile detective camera; £3 15s., or offers; specimens 2d.—Facile, 146, Aldersgate Street, City.

Hand-Cameras, etc.—Quarter-plate Pocket camera (by Rouch), six double backs, Wray's 5 by 4 R.R. lens, folding stand; £5; in good condition.—G. E. Franklin, Rickmansworth.

Shew's Eclipse quarter-hand-camera, with 6 double backs complete, with solid leather case, new, this year's Exhibition; cost £8 10s.; price £4 15s.—Ellis, 7, Park Village West, N.W.

Eclipse hand-camera, quarter-plate, three backs, roll-holder, view-finder, sling case, and tripod.—Particulars of W., 43, St. James' Road, Kingston-on-Thames.

Lenses.—7 by 5 rapid rectilinear lens, as new; bargain, 21s. 6d.—14, George Street, Stroud.

Optimus 7 by 5 W.A. rectilinear, perfect, as new; 40s.; approval.—Broadbent, 174, Lumb Lane, Bradford.

Lens and Shutter.—For sale, 8 by 5 Ross's R.S. lens, in good condition, £4 10s.; Cadett shutter to fit same, 15s.—W. Milburn, Brunswick Street, Carlisle.

Magic Lantern.—Magic lantern, size 6, cost £2, also box containing comic slides, 12 in. by 3 in., cost 16s.; will sell for £1 1s., or will exchange hand-camera.—Bland, 23, Norwood Street, Scarborough.

Safety Bicycle.—Safety bicycle, Ivel pattern, ball bearings to all parts, including pedals, bright parts well plated, adjustable to any rider, mud and chain guards, in splendid condition everywhere, with spring-back lamp and other accessories; price £3 10s.; great bargain.—J. Matthews, 34, Church Road, near Brixton Church, S.W.

Set.—Lancaster's half-plate Instantograph set, with four dark-slides, new, developing dishes, glass measure, head rest; cost £7; cash offers.—Greaves, 190, Heyside, Oldham.

Stripping Films.—Spool (48) whole-plate stripping film, unopened; highest offer has it.—M. E. Mallett, 237, Finchley Road, N.W.

Sundries.—Quantity of photographic sundries, consisting of plates, print washers, printing frames, etc.; list free.—Townsend, Attleborough Lodge, Nuneaton.

Tricycle.—Tricycle, genuine Humber, ball bearings, splendid condition, T handles, easy running, perfect, cost £18; sacrifice £4 10s.; room wanted.—2, Acre Lane, Brixton, S.W.

## WANTED.

Camera.—Whole-plate or larger sized camera; exchange Swinden and Bap's detective, new, cost £8, 5 by 4 size.—Sleigh, 16, South Castle Street, Liverpool.

Camera, etc.—Half-plate portable camera, must be by good maker, with three dark-slides, and all latest movements, brass-bound preferred.—State full particulars and price to M., 181, Lavender Hill, S.W.

Cameras, Lenses, etc.—Half-plate camera, lens, and complete outfit.—Address, with full particulars, Jno. McClelland, 6, Hornby Road, Hornby, near Liverpool.

Half-plate Meritoire camera and lens, in good condition, cheap for cash; approval.—A. Norman, St. Osyth, Essex.

6½ by 8½ camera and lens, also quarter-plate burnisher and retouching desk.—Hummel, Box 7, Quay-side Post Office, Newcastle-on-Tyne.

Condensers.—Pair of 5 in. condensers, lowest price.—X., 18, Braybrooke Road, Hastings.

Dark-Slides.—Dark-slide, 12 by 10, suitable for enlarging camera.—W. H. S., 26, Scarisbrick Street, Southport.

Whole-plate double back, cheap, good condition.—Jones, 31, Beaufort Street, Brynmawr.

Hand-Camera.—Kodak, No. 4, must be in good condition.—Dr. Fitton, Dewsbury.

Magic Lantern.—Good magic lantern; state size condensers, etc.—H. Crossley, Rodley, Leeds.

Negatives.—Negatives, Bedfordshire and Rutland; amateur would exchange lantern slides for above, or pay for use of negatives; not for publication or sale.—A. W. B., 36, Church Street, Liverpool.

"Photographic Quarterly."—No. 1, "Photographic Quarterly," issued October, 1889.—Apply, stating price, to Brewis, Blytheville, Darlington.

Printing Frames.—Half a dozen half-plate printing frames, cheap.—Edwards, 423, Stockport Road, Manchester.

Set.—Good quarter-plate or 5 by 4 set, lowest cash price; full particulars.—Gibbs, Manchester House, Bedminster, Bristol.

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## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.	Twelve Months, 10s. 10d.
POSTAL UNION .....	" 6s. 6d.	" 13s. 0d.
INDIA, CHINA, ETC. ....	" 7s. 9d.	" 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice, or Review are to be addressed to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS of the *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 18.—INLAND SCENERY, LANDSCAPE	Nov. 1.
" 19.—SEASCAPE AND RIVER SCENERY	Dec. 1.
" 20.—PORTRAITURE AND FIGURE STUDY	Jan. 1.
" 21.—ANIMALS AND INSTANTANEOUS SUBJECTS	Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM. PHOTO*.

All photographs for any of the above competitions will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.

ELLIOTT & SONS, "BARNET" PLATE,

PARK ROAD, BARNET.



# The AMATEUR PHOTOGRAPHER

Telephone No. 1645  
Telegraphic Address: VINEY, LONDON  
Offices: 1, Gressel Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 317.]

FRIDAY, OCTOBER 31, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

*'To hold as 'twere the mirror up to nature.'*—Shakespeare.

WE are pleased to state that the entry forms for the AMATEUR PHOTOGRAPHER "Holidays with the Camera" Competition are now ready, and will be sent on receipt of stamped, addressed envelope. The Competition is far away the best that we have ever promoted, and we hope that past winners will show their appreciation of our efforts by contributing. Some objection has been taken to the clause which provides that *the competitors will have to fill in upon their entry form the class in which they desire to compete.* We consider that photography is now sufficiently understood, certainly by readers of this journal, for those intending to contribute to put a value on their own work, and to enter it in such a class as they think will secure it recognition. Upon the question of our competitions the Hon. Secretary of a society and a prominent exhibitor at exhibitions writes:—

"You stand unrivalled for fair dealing in the competitions already dealt with, and as a loyal amateur, I uphold them by entering the lists whenever practicable. You have in a masterly and delicate manner handled the question of previous winners, and decided in a way that can offend none and should please many. What can be more pleasing than for a champion to meet one worthy of his steel? and winners of equal honours should consider their opponents in all respects worthy foes for another struggle."

\* \* \* \*

WE understand that at a recent meeting of the Club of Amateur Photographers in Vienna, Dr. Hofmann described a new French developer called "crystalos." Photographs by Mr. J. Lewitzki, of St. Petersburg, taken by magnesium flash-light, representing scenes from Tolstoi's drama of "The Czar Boris," met with general approval.

Baron Nathaniel Rothschild has taken up the practice of photography, and exhibited the result of his work at the last meeting of the Vienna Club of Amateur Photographers. The Baron, who is a great judge of paintings, benefited by his long experience, with the result that his photographs are pictures, and in the best possible taste. The Club is to be congratulated on its new member.

\* \* \* \*

THE Sunderland Photographic Association announces its second annual exhibition, for which exhibits are to be sent in not later than the 15th November. There are seven classes, but in none are other than members of the Association eligible to compete.

\* \* \* \*

WE have received the prospectus of the Gloucestershire Photographic Society's second triennial exhibition, which

will be opened on the 17th of April, 1891, and remain open until the 27th. There will be sixteen classes; in all but one—"Collection of Photographs," by members of the Society—silver and bronze medals are offered for competition. The Secretaries (Messrs. A. H. Clinch and F. H. Burr, Bank Buildings, Southgate Street, Gloucester) will be pleased to supply further particulars.

\* \* \* \*

MONDAY being a lantern night, there was a crowded room at the Photographic Society's Exhibition. The slides, which were the work of the members of the Field Club, were of first-class quality and well deserved the applause they received. They included some clever animal studies by Mr. Gambier Bolton, a series of Isle of Wight views by Mr. Wainwright, followed by a number of slides by Messrs. Wilkinson, Seymour-Conway, Gale, Hussey, and Austin. The views of the "Lake District" by Mr. Seymour-Conway were particularly clear and effective. It was announced that a special lantern exhibition will be given on Friday, November 7th, on behalf of the Photographic Benevolent Association.

\* \* \* \*

THE first meeting of the Lantern Society for the session was held on the 13th inst., when Mr. Andrew Pringle gave an address on "The Modern Applications and Appliances of the Lantern." He briefly alluded to the early history of the lantern, and proceeded to consider the various parts of the lantern, taking, in order, the body, where he dwelt on the advantage of portability, showing a small iron lantern, which, whilst capable of doing all that a lantern of ordinary construction would do, packed with all its parts complete into a box a quarter the size of an ordinary one; the condenser, describing the different forms which have been designed and used at different times; the lens, comparing the ordinary "lantern objective" with portrait and other types of lenses; and the luminant, describing the early form of limelight as designed by Drummond and Beechey, and going into the essentials of a good lime jet; he also showed a Brockie inclined arc lamp for use with the lantern. He then went on to discuss the uses and advantages of the lantern from an educational and scientific point, and showed several experiments on the screen. The screen used was portable, and designed by Mr. Pringle, with the view of being made as handy as possible for travelling. Amongst other things Mr. Pringle showed a scientific biunial, designed for showing diagrams, etc., on a screen before a



class, and a projection microscope of most simple construction designed by himself. Several pieces of lantern apparatus were exhibited, amongst them being a lantern constructed by Mr. J. H. Steward for using an incandescent lamp of 100 candle power.

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SEVERAL subscribers have now notified their intention of entering the "Developers Competition," and we shall hope very shortly to draw up the rules and conditions, which will be advertised in due course.

\* \* \* \*

WITH regard to the 1890 "Lantern Slide Competition," we shall be glad to receive slides as early as possible. The last day is the 22nd of November, and as the work of registering and preparing for the judges is likely to be of considerable magnitude, we trust competitors will send in their slides as much before the last day as is possible. We would remind intending competitors that there are four classes, and four prizes in each class—Gold, Silver, and Bronze medals, and a Certificate.

\* \* \* \*

A CORRESPONDENT, Mr. Fred Davies, sends us a long letter upon "Art as applied to Photography." We shall bear in mind his suggestions, and shall be very pleased to hear the views of others upon the subject. We have at the present time in contemplation more than one series of articles treating upon the art side of photography. We have never attempted to arrange a competition for "new examples of composition," and, as far as we know, any that have been promoted by others have been distinct failures; still, the matter is well worth consideration.

\* \* \* \*

WE are pleased to note that it is proposed to form a photographic society at Margate. This society would be of great service to the scores of amateur photographers who visit that favourite watering-place during the holiday season, provided the society would permit temporary membership, with use of dark-room, etc. Many of our societies in holiday and touring centres might do a good stroke of business by the election of temporary members.

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THE *Oracle* of the 25th inst. has "A Talk with Sir H. Trueman Wood upon the proposed Photographic Institute," which, perhaps, few of our readers know has been taken up by Dr. Lindsay Johnson, an enthusiastic amateur, and who has succeeded in gaining the good offices of the Lord Mayor, and also, we understand, those of the Lord Mayor-Elect, Alderman Savory, a gentleman of considerable culture and scientific attainments. The following questions put to Sir Henry, and his replies will give some idea of the comprehensiveness of the scheme:—

Q.—But the educational influence of such an Institute would alone give it a good claim to support?

A.—Yes. One of the chief aims would be to furnish the student with the opportunity of perfecting himself in every branch of photographic knowledge. Lectures would be arranged, classes established, and a regular course of instruction in the technical details of photography would be provided. The institute would hold examinations, and grant diplomas to those who attained the requisite standard of efficiency. Such certificates would not be without their value to young men seeking employment in the many branches of photography. Travelling and other scholarships might be founded if sufficient funds were forthcoming. The Institute would naturally aim at establishing a first-class photographic library, and a museum which should be at once historical and scientific.

Q.—Will you give me an idea of what the scheme is?

A.—I think I may do so, even at the risk of being considered somewhat premature. We had naturally to look at the question from various standpoints. First of all as regards the science of

photography. It appeared to us that a photographic institute could very properly encourage the discovery of new processes, and the further development of the existing uses of photography. It might either undertake researches through its own staff, or provide suitable laboratory accommodation for its members, and encourage the successful by grants of money. It would in any event make provision for the careful testing of photographic apparatus and materials. From an artistic point of view, it would probably arrange for the holding of exhibitions, both national and international, and would aim possibly as high as the convention, now and again, of an international congress. As to the commercial aspect of photography, it would provide assistance and information on a great many points, and in matters of copyright and patent should be especially able to safeguard the interests of those engaged in various branches of the photographic industry.

Q.—You would, of course, seek a charter of incorporation?

A.—Yes, and probably it would not be refused us. The difficulty does not lie in that direction so much as in the matter of funds. To carry on the work of a really comprehensive Institute would require extensive premises, fitted up for the particular purpose in view. There must be an exhibition gallery, a conference or lecture room, a library, a museum, class rooms, laboratory, studios, dark-rooms, and printing rooms. There must be rooms fitted up for the carrying out of collotype, Woodbury-type, and various photo-typographical processes. Such a building with the requisite offices, would, it is calculated, involve a capital expenditure of some £10,000 to £12,000, and the scheme itself would cost, roughly, from £4,500 to £5,000 a year. Against this you would have to set the subscriptions of members and affiliated societies, fees from students, charges for experimental work, and donations and bequests. You will see that the project is one which cannot be developed in a day.

Q.—You are not absolutely sanguine as to the immediate success of your scheme?

A.—I am not, personally. It is rather a large proposal, but the committee thought it their duty to take a comprehensive view of the matter. If the scheme can be carried out in its entirety, we think it will be greatly for the advancement of photography. On the other hand, we may have to be content with a small beginning, and, starting from a modest basis, leave the institute to branch out in the directions which experience suggests. With the great interest now manifested in photography, and the considerable number of photographic societies there are in existence, there ought to be no difficulty in getting funds, at all events for a reasonable scheme. With every year the chance of perfecting the Institute would increase. We could scarcely expect to burst full-blown upon the world. We have submitted what we think is the best scheme, and we shall try and work up to it as far as circumstances allow.

We are, of course, delighted to find that men, well known alike to the amateur and professional, are going to take up the scheme of the Photographic Institute, which was set out in these columns, and received so much attention last autumn. We have a mass of correspondence upon the subject, and shall be quite pleased to hand it over to any properly accredited person who may be acting for the Committee of gentlemen who have taken the matter in hand. It is not the place of the conductors of a journal to form either Clubs or Institutes, but to prove to the public the necessity for such associations, and receive and publish the opinions of those interested. This we have done, and what has resulted, is, as we have before said, at the disposal of those who are now proposing to follow up the suggestions made by this journal.

\* \* \* \*

THE *Globe*, in an article upon "The Future of Amateur Photography," says:—

"All is easy, and nothing, or next to nothing, is wrong; for not only has the difficulty of making negatives been got over, but fashion has stepped in and bridged another pitfall. In those older times—the art and science era which has been succeeded by the mechanical and the automatic—it was always insisted upon that a picture should be sharp and its points readily recognisable. Not so now. There are, of course, people of an old-fashioned



turn of mind, who, when they see a photograph, whether portrait or landscape, like to see it look clear and brisk. But that is not the present fashion. What is now admired by certain people who aspire to be leaders—witness the awards at the present exhibition—are “fuzzy” productions, of which little or nothing is distinct. Naturally, the inexpert foster this idea. There is no longer a necessity for a sharp focus; no longer for expensive lenses to get an unimpeachable definition. If the resulting negative is not sharp, print it on dirty-brown rough paper, and you have a fashionable print. Only contrive to give it a “greenery-gallery” look, and it will pass. Some one will say it has “soul” and “poetry” in it. If it has a dim and distant look, a faded far, far away appearance, so much the more readily will the soul and the poetry be discernible.”

\* \* \* \*

THE annual exhibition of work done by members of the Birmingham Photographic Society will be opened on the 10th, and remain open until the 19th of December, in the Temperance Hall, Temple Street, Birmingham. There are fifteen general classes, seven special competitions, and three having reference to the “Warwickshire Survey Section.” We feel assured that the exhibition will be of much interest. The public will be admitted by ticket, price sixpence, to be obtained of the Secretary of the Exhibition Committee.

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THE Darlington Photographic Society are promoting an exhibition to be held in February next. The Secretary, whose name and address are given under the exhibition fixtures, will be pleased to supply further particulars.

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THE Holborn Camera Club, 100, High Holborn, hold a meeting every Friday evening throughout the year, upon one evening every month there is a lantern exhibition, and upon another a demonstration or lecture is given by some well-known worker in photography. The Club is open to ladies or gentlemen; the subscription is small. Mr. J. E. Smith, the Hon. Secretary, will be pleased to give full particulars as to membership.

\* \* \* \*

OUR readers will hear with much pleasure that Mr. Andrew Pringle has kindly undertaken to prepare for this journal a series of articles upon “Photo-micrography,” of which the following is a syllabus:—

(1) Introduction and general arrangement of apartments, etc. (2) Microscope stands and apparatus for photo-micrography. (3) Object glasses: oculars, condensers, bull’s-eyes, etc. (4 and 5) Use of bull’s-eyes, condensers, oculars (projection and others). Focussing glasses, about “flares,” etc. (6) Illumination. (7) Plates, ordinary, colour-correct; screens and light filters. (8) Exposure. (9) Development. (10) Examples of specific objects, treatment of various kinds of objects. (11) Printing: hints specially for micrographic printing. (12) Opaque objects, polarised light, black ground, etc.

Mr. Pringle is certainly one of the first authorities, not only upon photo-micrography, but also photography and microscopy. We feel sure that these articles will lend an additional charm to the readers of this journal, and the clear and succinct manner of Mr. Pringle’s writing will win many of our subscribers to the study of that most fascinating of all applications of our science, photo-micrography.

\* \* \* \*

AN exhibition of photographs, etc., is to be held in New York in May next. Further particulars will be announced at a later date. Mr. F. C. Beach, the Chairman of Committee, 113, West 38th Street, New York, will be glad to hear from intending exhibitors.

\* \* \* \*

MR. GAMBIER BOLTON, F.L.S., so well known for his photographs of animals, has been interviewed in the *Pall*

*Mall Gazette*. In the issue of the 28th inst. a very interesting account is given of Mr. Bolton’s method and work amongst animals.

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WE are very pleased to note that the “Dealers’ Association,” recently formed, has commenced work. Its objects are set forth in a letter from Mr. Birt Acres, which we publish in another column. It is a matter for congratulation that an association has been formed which is prepared to deal with such complaints as have before found their way into the correspondence columns of this and other photographic journals for want of a better channel. We are personally delighted to be relieved from the necessity of acting as a go-between to buyer and seller, and are now relieved from what has been a difficult matter, and which, in our desire to act honestly for both parties, has led to unpleasant consequences. Questions affecting “buyer and seller” should be addressed to the Secretary of the Association.

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AT the moment of going to press we have received intimation of the formation of the Wimbledon Amateur Photographic Society. Mr. Cosmo-Bonsor, M.P., has consented to take the presidential chair, and the Rev. Henry G. Allfree, of 28, King’s Road, South Wimbledon, the originator of the movement, has undertaken the duties of Hon. Secretary *pro tem*.

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THE November number of the *Photographic Reporter* will have as a frontispiece a collotype from Mr. James Shaw’s negative, “Fountains Abbey,” which has been produced by Messrs. Hazell, Watson, and Viney, Ltd., who have found it necessary to add a photo reproduction department to their already very extensive business.

\* \* \* \*

WE offer no apology for again referring to the pictures now being exhibited at the Photographic Society’s Gallery in Pall Mall, inasmuch as a comprehensive and careful study of the works there to be seen can be made the theme for a considerable amount of instructive moralising, which certainly could not be exhausted in confining our remarks to those features embraced in our previous article. There are a great many other points worthy of attention which have an educational value for amateurs of ordinary photographic attainments seeking information, and to a few of them we may be pardoned for directing greater attention. Viewing the Exhibition as a whole from the instructive standpoint, and eliminating criticism of the ordinary character, many valuable hints may be obtained by scrutinising certain of the prominent pictures, and finding out how some of those difficulties which appear to be inseparable from photography in one stage or another of its manifold phases have been successfully overcome, also in making mental notes of those features in the photographs to which they are indebted for the merits they possess. It is not our object to refer to any of the pictures individually by way of assisting our readers to obtain the valuable object lesson to which we have referred, because to a sufficient extent the able criticisms that have already been published in this and other journals have sufficiently covered the ground. In these articles the most noted pictures have had their good qualities and defects from an artistic standpoint clearly set forth; the rest must be left to individual taste. It has been stated by several critics that many of the photographs shown will, on close examination, be found to bear traces of the brush or pencil having been used upon the face of the prints. Now, we think that the common-sense way of looking at this matter should be allowed to prevail. From this standpoint it is obvious that this class of work may be absolutely necessary, and therefore



permissible, and, again, may be unnecessary and not to be tolerated. It may be done to emphasize the truth, or it may be done to disguise the truth. In one case it becomes meritorious, in the other meretricious in the extreme. It must be acknowledged that photography has not been brought to that pitch of perfection where all the various adjuncts necessitated in the production of a picture are absolutely reliable in every particular. Therefore, on occasions the result of defects manifesting themselves at some point will be apparent in the photographs. If these can be successfully obliterated by the artist's skill, it seems absurd to argue that because it was not absolutely done by chemicals it should not be done at all. Of course, we only refer to cases where work of this sort is so skilfully accomplished that it is not evident to ordinary scrutiny. Touches of any other character are baneful, and therefore carry their own condemnation. Again, the photograph may be one whose object is to confer pleasure to beholders sensitive to artistic effects, by suggesting aspects of nature or of scenes that they love to recall to mind. A photograph of this class is the work of an artist employing certain tools to produce the result he aims at. We fail to understand the contention that these tools should be limited to those of one class, but cordially agree with the critics who declare that the result is what should be looked to, and not the methods by which it was accomplished. If the effects desired can be heightened or created by the amalgamation of all the arts, then the results justify the means; let them be employed. If, however, a false note is struck, and the harmony destroyed, then the picture ceases to be one about which we need have any concern. True art must not be manacled. Photographers are prone, unfortunately, to be narrow-minded. The society of a picture should be enjoyed, whether it is a photograph or a painting, if it possesses the requisite elements for conferring pleasure. It is not intended for microscopic examination or dissection. Treat it like a friend.

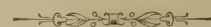
In regarding the matter of working on prints from this aspect, we do not take into consideration the arguments that have been advanced against all such methods on the score of the unfairness of entering photographs which have undergone treatment of this character at exhibitions in competition with pictures which have been created just as they are shown by purely photographic appliances. If the object of the exhibition is to encourage artistic work, then a fair field should be given, and the hands of intended exhibitors should not be fettered, inasmuch as it is not to be denied that the powers of photography, as at present understood, are in certain directions limited, and must be supplemented. It might, however, be a fairer way to divide the classes, so as to eliminate objections of this nature.

It is obvious, however, that for any other purposes but those here suggested, retouching should not be tolerated. A photograph intended to be an exact reproduction of a scene, whose appeal for recognition is based solely on the fact that, being a photograph pure and simple, it is as far as possible truth itself, should in no way be tampered with. When hiding or obliterating some portion of the detail is the intention thereof, the work becomes a pictorial lie. Give it no space in any reputable gallery, nor allow it to be an exponent of any branch of the photographic art.

Another way of viewing the pictures in this or any other gallery with the objects in view to which we are alluding is to carefully examine some of the less prominent works and discover the reason of their acknowledged inferiority. Now, the Pall Mall Exhibition has many pictures on its walls which have just fallen short of excellence, not through defects in the appliances used, but through want of knowledge, skill, or artistic training in the photographers themselves.

In three or four notable instances this is to be regretted, for the photographs in question could easily have been made of a character that would have warranted their being placed in the foremost rank of the pictures exhibited. A frame full of silver-printed photographs contains one or two gems that, with different treatment, would have received universal approbation. The points of view have been so well chosen that the composition is in each case almost faultless, yet for want of the necessary skill in utilising such negatives for exhibition, the pictures barely excel those to be seen in the show-cases of any stationer's window. Another similar case is in a seascape with the breaking water capitally portrayed, but the flat, insipid tone of the print, want of relief, and lack of attention to some minor details have prevented the picture from entering the ranks of the most prominent works of the exhibition.

Information of a most useful character can also be received by carefully studying the methods adopted by the most noted workers to give finish and tone to their pictures; also by noting the way such photographs have been mounted and framed. It will be readily seen that details of this character cannot be treated with contempt, or the pictures suffer.



## Negatives and Positives.

WHAT with Stanley's "Darkest Africa" and Booth's "Darkest England," it only now remains for Professor Pinhole to complete the triad with his "Darkest Dark-Room Dufferdom"—and then the Millennium, or the Deluge—*chacun d son gout!*

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SPEAKING of dark-rooms, can it be true that a company (strictly limited) is being formed for the working of a non-actinic patent medium to be made from liquefied London fog? The *special* medium for orthochromatic plates is to be manufactured from that choice form of fog which Sam Weller would have identified as a "regular pea-souper." The company are not likely to run short of the *raw material* for some time to come!

\* \* \* \*

A friend of ours who has had more than an average share of group-taking, says that the fool of the party is best "fixed" by asking him to "sit down in one of his very funny attitudes" on a hard-seated chair, upon which you (the operator) have thoughtfully arranged a drawing pin, with its business part unoccupied and upwards. How is it that the funny man will not see the *point* of your joke?

\* \* \* \*

MEETING our friend the "Learned Pundit" the other day, just after he had made the grand tour of the Pall Mall Show, and in reply to our query of what think you, etc., he replied, in his usual paraphrastic manner, "My friend, it is easier for a 'crank' to pass through a pinhole than for him to deserve the brazen bauble."

\* \* \* \*

ONE may as well be resigned first as last, and cheerfully face the inevitable fact that "the present state of the focus question" is, like the Irish question (and the poor), likely to be ever with us. If complications and side issues continue to accumulate at the present rate, our next generation will require to have the roof of their heads protected with steel plates of about one inch in thickness.

\* \* \* \*

POSSIBLY someone who has made a speciality of instantaneous photography will kindly explain why operators in



this branch have such a marked preference for three legged horses, or, at any rate, why it is that so many of their prints only show three legs to each horse on an average; and perhaps can further explain also how it is that the hind legs of a walking man generally give one the notion that he is striking an attitude illustrative of a football drop-kick?

\* \* \* \*

THE "disciples of the pin-hole" are much exercised in mind as to what they shall call themselves and their productions. They want to invent a "kodakky" sort of term which shall express "We are the shining-lights-of-the-world-and-our-productions-are-feeble-imitations-of-second-rate-sepia-smudges-produced-by-a-pin-hole-which-we-don't-want-to-be-classed-with-the-common-or-garden-photograph."

\* \* \* \*

THE common saying "Little things please little minds" has inspired our staff poet. Hereunder is a specimen of "as bad as they make them":—

You've heard of K. Cimabu-Brown,  
Who tries to make fun of the Town,  
With the point of a pin  
He made holes in some tin,  
Which pleased that young man callèd Brown.



## Letters to the Editor.

### PHOTOGRAPHIC MANUFACTURERS AND DEALERS' ASSOCIATION OF THE UNITED KINGDOM.

SIR,—The above Association being now fully established, offices having been taken, and a permanent Secretary duly appointed, is now prepared to deal with any question affecting the photographic trade.

To buyers of photographic material, both at home and abroad, the Association will prove of considerable value, as they will know, when dealing with a member of the Association, that he is a *bona fide* manufacturer or dealer, as the case may be.

The Council would esteem it a great favour if any cases of unfair or dishonest trading, with full particulars thereof, be immediately reported to the Association. Such communications will, of course, be treated as strictly confidential.

All communications should be addressed to the Secretary (Mr. F. O. Bynoe), 7, Southampton Row, Holborn, W.C.

Thanking you in anticipation for the publication of this notice, I am, etc.,

BIRT ACRES.

131, Richmond Road, Hackney,  
October 28th, 1890.

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### AN AMATEUR SOCIETY FOR WIMBLEDON.

SIR,—Will you allow me to make known through the medium of your valuable paper that an Amateur Photographic Society for Wimbledon is in course of formation. Promises of support already received are very encouraging, and at a preliminary meeting held on Tuesday last, it was announced that Cosmo Bonsor, Esq., the popular local member of Parliament, had very kindly consented to be the first president.

The originator of the movement, the Rev. Henry G. Allfree, 28, King's Road, South Wimbledon, has undertaken the duties of Secretary *pro tem.*, and will be glad to receive the names of ladies or gentlemen willing to assist.—I am, etc.,

St. Helen's, Worple Road, JOHN H. OLIVER.

Wimbledon, S.W., October 29th, 1890.

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### BROMIDE PAPER UNDER GREEN GLASS.

SIR,—Has any one tried bromide printing under green glass? I had an over-exposed negative from which I could not get a print worth looking at by any process, but the result under green glass is a really good print, in which the whites are perfectly pure. I told a friend of mine of the dodge, and his results after trying it were such as to fully bear out my experience. The exposure

needed is twelve to fifteen times as much as the ordinary method of bromide printing.—Yours faithfully,  
October 27th, 1890.

NIGER.

\* \* \* \*

### DEVELOPING COMPETITION.

SIR,—The proposal of Mr. A. C. Townsend will not, I venture to think, help us very much to determine the real merits of the several and respective developers now in use. His idea may be novel, and would, no doubt, prove very popular, if only for the excitement which it would involve. But as solid tests of the matter in hand it is useless, because the competition would be at once reduced to a question of individual *skill*, but in no way a proof of what the several developers are capable of doing.

I cannot help feeling that if the matter is to be tested at all we shall not find a more simple and at the same time a more definite and satisfactory way of arriving at a just conclusion than by the adoption of some such test as I before suggested.

Let each competitor do his *best* with his *own* chosen tools, let him hand the results to competent judges, and let the judges say which are the best all-round set of negatives.

As for the competition as proposed by Mr. A. C. Townsend, I would have none of it, for two reasons: first, because I know nothing at all about lantern-slides; secondly, I should be working under a disadvantage in knowing nothing of the plate I was working with. It may be said in reply to this, that *all* competitors would be under the same disadvantage. Yes, exactly so, and therefore the test would not be fair, in that some developers would be just right and others equally wrong, so that whether I got a plate that pleased me or not would be a simple matter of chance. How can we judge fairly of respective developers where such a chance is possible? Mr. Townsend further considers the time which I suggest—namely, one year—as the extent of experience allowed, to be *against* my proposal. But if we admit more extended limits, it seems to me that we shall be just so far losing sight of our real object, which is the testing of *developers*, not the testing of *skill*. Hence, if we show what can be done under the workers own conditions, we shall have at once a definite result, but it is evident that a number of years' experience added to the intrinsic power of a developer will make a difference. Therefore, I maintain that a limited experience is necessary for a just conclusion.

If we are to test the matter fairly, we must exclude all that adds to or takes from the actual merit of the developer.—Yours truly,  
F. M. G.

SIR,—I was much pleased to see your leader and Mr. Townsend's letter in the AMATEUR PHOTOGRAPHER *re* Lantern Slide Development Competition, and I am sure that it will be a very interesting and profitable competition, because it will prove to a very great extent which developer is the best and most universally used for lantern-slide work.

I have worked with Mr. Townsend's formula all last winter, and have always got good results, and I am confident that if the working of this developer was more widely known it would be universally used. I do not think the scheme can be improved upon. I presume that each competitor shall be at liberty to use his own pet developer, and that the plates that are issued will be by standard makers.

I shall be pleased to take part in the competition, and hope you will be able to carry it to a successful issue.—Yours truly,  
SPARHAM CAMP.

SIR,—With regard to the proposed test as to capability of the various developers, I think that the remarks made by Mr. Evershed as to plates being preferable to lantern slides are worthy of support.

In addition to the proposal for plates, it would be advisable to select a good make of plate, and to insure that all plates used are from the same batch number.

There is one other consideration, and this is with reference to the method of exposing the plates. It would be preferable to expose on some outdoor subject and in daylight, those being the conditions generally required. On the other hand, the exposure to artificial light, such as gas, would have an advantage in point of exact similarity as to duration of exposure, but I am not certain if the wide range of tone found on a plate exposed out of doors will be equally well produced by a gaslight exposure.

It would be as well also to suggest, in the rules, what class of printing paper is to be used, as the negative should be prepared



with a general idea as to its ultimate use. Certainly it will be well to give the plates a wide range of different exposures. The plan of ticketing the glass side of the exposed plate with particulars of subject, etc., would be useful, to avoid confusion. I shall be pleased to use quinol in such a test.—I am, yours faithfully,

Oct. 27th, 1890.

SIR,—If you issue exposed plates or slides I would gladly develop same. Has it occurred to you, however, that the experimenter would only decide which was the best developer with the special brand of plates employed, unless, indeed, you obtained sufficient workers to issue plates by a good many of the leading makers? Moreover, for any given man to obtain the best possible results with any given developer, he ought to be accustomed to the brand of plates, for I, at all events, find that I produce far better results with plates I know than with plates I do not know. Do you propose telling the developers which plates are rightly over, or under, exposed? To tell us would secure the finest negatives, but to leave us to develop tentatively would perhaps be a better test of the developer.—Yours faithfully,

R. C. MACLEOD.

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#### THE FOCUS QUESTION.

SIR,—Dr. Emerson's remarks on my article on the focus question will require very few words from me in reply, but I am glad of this opportunity of congratulating him on the improved *temperature* of his style of writing. He has applied the term "ignorant" to me once only, and even that appears to be in some measure in a Pickwickian sense.

Dr. Emerson says that Mrs. Cameron, in 1865, was the first to put diffusion of focus into practice. Let this be granted; but it is well known that her earlier photographs were out of focus more by accident than design. It was not done with the intention of giving her pictures more "profound expression." She knew nothing of the qualities of lenses, and worked at first with a very bad one, not knowing that it was bad. She afterwards, at my recommendation, procured a better lens, and her work improved, especially in definition, and she was delighted with the improvement. He goes on to say that from that time, 1865 (mark the dates), controversies went on; Claudet made experiments in softening the image, etc., after which he says, "This led Mr. T. R. Williams to ask, in 1874, the late J. H. Dallmeyer to make him a lens that would give this softness." He adds that this is recorded in Mr. Dallmeyer's books, and confirmed by his son. He ignores the passage quoted in my article from Mr. Dallmeyer's paper of 1866, in which he acknowledges that he would not have made the diffusion lens but for the pressure put upon him by myself and others.

Now here is, apparently, an undeniable fact defying contradiction, proving, by all the pomp and circumstance of books and witnesses, that T. R. Williams alone suggested the diffusion lens, and so late as 1874, long after Mrs. Cameron produced her pictures. I should feel covered with confusion if it were not for one startling incident.

When a writer says that a certain man did a certain thing at a certain time, he should fortify himself by making sure the man was alive at the time. It would at least help him to strengthen his apparent veracity. Mr. Williams was not alive in 1874. He died three years earlier, in April, 1871. "Are visions about?" Dr. Emerson must confess that he is, to say the least, a little careless.

The fact is that Dr. Emerson last year committed himself to the statement that I have always advocated sharpness, and does his, perhaps not very scrupulous, best to prove it, while the real truth is, I have always been in favour of diffusion, not, however, to the pinhole extent, but certainly to the extent used by Mrs. Cameron in her last and best work.

I have before this had to point out the unfair use Dr. Emerson has made of passages in my writings. In his present statement he says I called Mrs. Cameron's work "smudges" in the discussion arising in 1865. He is again shaky in his dates. The word was first used by me in "Pictorial Effect;" the first edition, from which I propose to quote, was published in 1869. I apologise for troubling you with so long a quotation, but I find condensed into it a complete reply to Dr. Emerson on more than one point. It will be seen that I referred only to the early works, and highly praised their art qualities, while I condemned

the ignorance of those who attributed their excellence to their undoubted faults rather than to the artistic manner in which they were conceived. At the same time, it will be noticed, I actually strongly recommended diffusion of focus. Here is the paragraph:—

"For the last few years some photographs by a lady—many of them failures from every point of view, but some of them very remarkable for their daring chiaroscuro, artistic arrangement, and, in some few instances, delightful expression—have been brought prominently before the public. These pictures, for the qualities I have mentioned, have received the most enthusiastic praise from artists and critics ignorant of the capabilities of the art, and who, because of this want of knowledge of photography, have attributed the excellencies which these photographs undoubtedly, as masses of light and shade, possess, to their defects. These defects are, so little definition that it is difficult to make out parts even in the lights; in the shadows it often happens that nothing exists but black paper; so little care whether the sitter moved or not during the enormous exposure which, I have been told, is given to these pictures, that prints are exhibited containing so many images that the most careless operator would have effaced the negative as soon as visible under the developer; and, apparently, so much contempt for what we may almost call the properties of photography, that impressions from negatives scratched and stained, and from which, in one or two cases, the film has been partly torn away, are exhibited as triumphs of art. The arguments of the admirers of these productions are, that the excellencies exist because of the faults, and that if they were in focus, or more carefully executed, their merit would be less. This is not true, and, if it were, I should certainly say, Let the merits go; it is not the mission of photography to produce smudges. I think the artist herself is beginning to feel this, for I have seen some later productions much more carefully worked out. If studies in light and shade only are required, let them be done in pigment or charcoal, with a mop, if necessary; but photography is pre-eminently the art of definition, and when an art departs from its function, it is lost. I must not be understood to mean that I object to that almost invisible diffusion of focus produced by spherical aberration in a lens, or by unscrewing the back lens, as arranged in Dallmeyer's group combinations; this is a power of immense value to a photographer, especially in large pictures. For portraits larger than 10 by 8 the lens should always be unscrewed at least one turn; by this means all parts are brought into focus without visibly injuring the definition in the usual plane of focus."

I meant to confine my reply to a few words only, but, really, Dr. Emerson is so fascinating an opponent that I feel a pleasure in allowing him to draw me out, and thereby probably becoming a bore to my readers.

H. P. ROBINSON.

SIR,—In your issue of the 24th inst. I notice some remarks by your correspondent, Dr. P. H. Emerson, on the photo-etching in the current number of the *Photographic Quarterly*. I quote paragraph 7 of this communication (the italics are in the original):—

"(7) The 'pinhole' picture given in the *Photographic Quarterly* is misleading; the photo-etching has been worked upon to a great extent, and this very hand-work has been done to get the effect of differential focussing."

Here are three statements totally unsupported by any proof of their correctness. Might I ask the writer if he would kindly gratify my curiosity, and point out where he thinks the effect of differential focussing has been produced?—Yours, etc.,

ALFRED MASKELL.

\* \* \* \*

#### ART AS APPLIED TO PHOTOGRAPHY.

SIR,—As the subject of art in connection with photography is now engrossing public attention, it may not be out of place to observe that few people seem to know the ordinary meaning of the word "Art." Thus a writer, not long since, said "Art is Art precisely because it is not nature," "Art is the expression of personality."

The word art has a very large meaning. The dictionary defines it as "the artificial disposition or modification of things to answer some special purpose;" or, more simply still, "the employment of means to accomplish some desired end."

There are, in fact, many arts, such as the useful arts, the art of bricklaying, the art of carpentry, for instance; and honest old Izaak Walton says, "Fishing is an art, at least it is an art to catch fish." Then there are the so-called seven liberal arts, grammar, rhetoric, logic, arithmetic, music, geometry, and astronomy; and a proficient in these, at a university, is called a Master of Arts.



And there are the Fine Arts, as painting, drawing, sculpture, etc. At present we are most concerned with this latter kind, and in speaking of art as applied to photography we ought always to use the term Fine Art.

The object of Fine Art is the portrayal of the Beautiful. But before we can *portray* the Beautiful we must know what the Beautiful implies. On this subject great diversity of opinion exists; and that which is exquisitely fine to one is quite vulgar and commonplace to another. Most people, however, agree upon one point: that the animal and vegetable kingdoms present certain well-known typical forms which are universally acceptable. Thus, it is on record that a greyhound is "comely;" and we have it on the highest authority that we are to "consider the lilies as they grow," since "Solomon in all his glory was not arrayed like one of these."

The noblest quality of intelligence is creation or invention; therefore the true artist seeks to invent or create new combinations of the Beautiful—to take ordinary objects of nature, and make them "point a moral and adorn a tale." Thus a rustic style, a pretty girl, and the figure of a distant man may be of little interest separately, but combined they may be termed "The Tryst," and form the ideal of a love story.

Some people admire landscape, pure and simple; but far greater interest is usually aroused by photographs which have a human story centred in them, and which employ a beautiful landscape only as a fitting background to the subject. "The noblest study of mankind is man."

This brings us to the realms of composition, and confronts us at once with a difficulty. Nature is of infinite dimensions—the photographic plate is of arbitrary size. Composition, therefore, teaches us that if we desire to produce a certain effect in a limited space, we must adopt certain economic rules of expression. These are called the laws of composition.

The works on this subject seem to be very few, Burnet and Robinson being, perhaps, the best known. And the value of these rules even seems to be indifferently assessed, as in your otherwise thoughtfully written leader on the current exhibition you are made to say in one part, "A photographer seeking to produce artistic pictures by aid of his camera must first of all have some artistic training," and then, in speaking of the value of "balance" later on, "Now this is all very well, but the result is monotonous.... Light and shade, tone values, and tonality are of more consequence in the general run of landscape work."

A painter in idealising outdoor subjects, arranges his models, or draws his figures in certain positions; whilst the average photographer is content to depict them as they happen to exist at the moment. This, however, is simply a question of education; and provided that the man of culture arranges his groups in beautiful order, we know that photography can "hold as 'twere the mirror up to Nature," more correctly than can the subtlest hand that ever held a brush. The landscape photographer, has, of course, certain grave difficulties to contend with, such as wind, light, etc.; but these do not affect the principles involved—they only make more difficult the successful practice of them.

What we seem to require, therefore, is a better acquaintance with these economic principles. In vols. ix. and x. were given a series of short chapters on art photography. These might be recast and much amplified. Competitions might be started for new examples of composition.

I also venture to suggest, as winter is approaching, that some competent authority should deliver a series of lectures on the subject, illustrated by living models. These would probably "draw," just as "living" chess always does.

There might also be competitions in arranging groups on given subjects, and judges to award prizes for the best performances. The statutory groups at the Aquarium some time since were very successful as spectacles; might not replicas of them be arranged and photographed by the lime or magnesium light?—I am, yours truly,

FRED DAVIS.

\* \* \* \*

#### MEDALLED PICTURES.

SIR,—As I find myself placed in a false position at the Photographic Society's Exhibition, a medal having been awarded me and now withdrawn on account of my having infringed the rules, I trust you will grant me space to make the following statement.

In the first place I had no idea of exhibiting at Pall Mall this

year, and should not have sent but that, incidentally meeting the hanging committee at the restaurant where I lunch, they particularly requested me to do so.

I promised to see if I could find something, and the same day I sent an enlargement (a life-size single figure), which in the hurry I quite forgot had been exhibited at the Drapers' Hall last season—this picture on delivery was recognised, refused, and brought back.

For several succeeding days I met the Committee at the same place, and one day I spoke to Mr. Cocking, the Secretary, and expressed my regret at the mistake, and told him that I had nothing else I cared to send which had not been exhibited at the Crystal Palace or in the City, upon which he told me in a friendly aside, that he did not think there would be any objection to the Palace, it being so nearly out of the postal district, but that anything shown in the City was out of the question, and he again urged me to send something that day, as, though the hanging was practically finished, he could yet find room if my pictures were not large.

Two small photographs were accordingly sent that evening.

I hope that this will show that I acted in perfect good faith.

—I am, yours faithfully,

HENRY VAN DER WEYDE.

October 21st, 1890.

\* \* \* \*

#### SOCIETY FOR MARGATE.

SIR,—I am desirous of testing the feasibility of establishing an amateur photographic society in Margate, and as there probably are some subscribers to your paper who would be willing to attend a preliminary meeting to discuss the scheme, I shall be glad if you will allow me to ask any such to send me their addresses.

Also, could any of your readers let me have copies of rules, plan of campaign, etc., such as would be suitable for a small country society?

Thanking you in anticipation, I remain, yours, etc.,

54, Hawley Square, Margate,

GEO. R. TWEEDIE.

October 27th, 1890.

\* \* \* \*

#### SQUEEGEEING ON CELLULOID.

SIR,—For some time past I have been using some old celluloid films (Carbutt's) to give a matt-surface to bromide and Aristotype prints, and have been so pleased with the results that I decided to try the same process for finishing some bromide enlargements. Some sheets of celluloid were sent me by Guiterman and Co., of Hart Street, on which the enlargements were squeegeed and dried as usual, but to my utter disgust not one of them will peel. The manipulation was precisely the same, both with the half-plate on Carbutt's film, and the enlargements on Guiterman's, yet while the former used to strip on its own account, no amount of persuasion will make the paper leave the Guiterman film. It is very annoying, and I want to know if anyone can give me a hint in the matter. Does the composition of celluloid vary greatly? The two kinds I have been using are almost identical in everything but behaviour. The films I have been using have required no preparation, and have *always* stripped clean either with matt or polished surface, and it almost seems as though there were something in this Guiterman film, which has a special liking for gelatine.—Yours faithfully,

THE SMITH.

\* \* \* \*

#### WARM TONES.

SIR,—I accept Mr. Wain's qualification of my former letter, and hasten to give him the further information he asks for. Using *f*/11, I got to-day a 15 by 12 enlargement from half-plate negative, on Alpha paper, in forty-five minutes.

Of course, this time seems long, but I do not think any method of toning bromides, including the necessary washings, etc., will occupy so little time, and they certainly will yield inferior results, and, in all likelihood, less permanent ones.

It may be that a satisfactory and certain means of altering the colour of a bromide print will be found, but I have not yet seen one. So fast, indeed, do experimenters seem in this direction, that one seriously suggested recently that the bromide in the paper should be converted into a chloride and re-developed; that is, he ended where Alpha begins, with a chloride. I had good reason, therefore, for my first question—why not use Alpha?—Yours, etc.,

JOHN HOWSON.



## TONING BROMIDE PAPER.

SIR,—As a supplement to my letter of the 24th, I send here-with another print, which is toned by bichloride of mercury and washing soda.

The tone is a warm sepia black, and, as you will see, the high lights are perfectly clear.

The print is from a thin negative with a fair amount of detail, and is printed on Ilford slow paper.

The exposure was 60 seconds, 3 ft. from paraffin burner (round flame about 1 in. diameter), and the printing frame was covered with matt-surfaced celluloid.

The print was under-exposed, badly stained in development (iron developer), and cleared after fixing and washing by a strong hydrochloric acid bath, well washed, slightly bleached with bichloride of mercury (10 gr. to 1 oz. distilled water), washed for two hours, and intensified with saturated solution of washing soda, then washed again for an hour and dried on matt celluloid.

The tone before drying was even warmer than it now appears. I very much doubt if better results could be obtained on Alpha paper, if they are permanent.

One of the greatest drawbacks to Alpha paper is the difficulty in getting two prints developed to *exactly* the same colour, and as the final tone is influenced largely by the colour after development, this is important.

This bleaching and intensifying may seem to be a good deal of trouble, but really it is very simple, as the solutions may be used over and over again—in fact, seem to work more evenly after keeping.—I am, yours, etc.,

EDW. B. WAIN.

\* \* \* \*

## INTENSIFICATION OF PRINTS.

SIR,—The light failing, I found myself with a number of half-exposed prints on home-sensitised paper, that would not stand twenty-four hours longer before toning.

Reading about Mr. Lyonel Clark's intensification of prints, I applied his process, as reported in your columns, both to matt and albumenised prints. The result of my experiment was a marvellous range of tones, from that of clay to garden soil, in which the whites fully participated.

I should be very pleased to have further light on the matter, as Mr. Clark is one of the few exponents of photographic details who are both theoretical and practical.—Yours obediently,

H.

\* \* \* \*

## DIFFICULTIES IN ERECTING A STUDIO.

SIR,—If Mr. J. Montgomery will go to the trouble of putting four small wheels, one at each corner of his dark-room, it will cease to be an outbuilding, and I believe it will then come under the heading of vehicles. No one then can compel him to remove it.—I am, etc.,

E. E. J.

October 26th, 1890.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 274.)

SINCE the products of respiration and combustion are injurious to health, it is necessary to remove them as rapidly as possible, and at the same time to keep up a supply of fresh air, for not only must the organic matter, etc., be got rid of, but the oxygen must be kept up to a certain minimum proportion. This process of removing foul air, and supplying fresh air, is termed ventilation.

EXPERIMENT 61.—In place of the stopper of a small stoppered bell-jar, fit a cork, through which passes a short tube bent at a right angle, with a piece of indiarubber tube attached to it. Allow the jar to stand in a vessel containing sufficient water to fill the jar, and suck all the air out of the bell-jar into your lungs. As soon as the water has risen to the top of the jar, stop sucking, and allow the air from your lungs to pass slowly back again. Now remove the cork, and introduce a lighted taper into the bell-jar. The taper will be extinguished, because the air

from the lungs contains so much carbon dioxide (4·4 per cent.) and so little oxygen (only about 16 per cent.) that the taper can no longer burn. This air would be almost as injurious to human life as it is to the burning taper.

Ventilation which is not effected by a fan or similar mechanical means depends on differences between the relative weights of equal volumes of pure air and foul air. At the ordinary temperature carbon dioxide is considerably heavier than an equal volume of air, but the carbon dioxide produced by combustion is in a highly heated and, therefore, expanded condition, and under these circumstances it is lighter than an equal volume of pure air, and will rise through it. Similarly, the foul air coming from the lungs is warmer than the surrounding air, and tends to rise, being relatively lighter in consequence of its expansion. It follows that in an ordinary room the foul air tends to collect at the top. This you can easily prove by mounting a step-ladder, or even a table, after the gas or lamps have been burning for some time. The fact is illustrated by the following analyses of the air in an ordinary sitting-room during the evening; the ceiling of the room was 8 ft. 6 ins. from the floor:—

	Carbon dioxide in 10,000.			
Near the floor .. ..	..	..	..	7·33
Half-way up .. ..	..	..	..	9·00
Near the ceiling .. ..	..	..	..	14·65

It is clear, therefore, that if we are relying on these differences to secure our ventilation, the outlet for the foul air must be placed near the top of the room. An inlet for fresh air is equally necessary, and it must be quite distinct from the outlet. It is best placed near the floor of the room.

EXPERIMENT 62.—The necessity for two distinct openings is clearly shown in the following way:—Attach a small piece of candle to a wire, light it, and introduce it into a large flask with a long narrow neck. After a short time the candle will burn feebly and then go out. Remove the candle, fill the flask again with fresh air, light the candle and put it into the flask, and at once slip into the neck a long narrow piece of stiff card which divides the neck into two passages, up one of which the products of combustion can escape, whilst fresh air finds its way down the other. Under these conditions the candle will continue to burn brightly. As already stated, the outlet and inlet should in practice be at some distance from each other.

EXPERIMENT 63.—Fix in a vertical position a glass tube about 2 feet long and not less than 1 inch in diameter. Arrange a small gas flame or a candle flame so that it is close under the bottom of the tube. Now hold near the bottom of the tube a piece of smouldering brown paper; the movement of the smoke shows that a current of air is rising in the tube, and that the air is flowing from all directions towards the mouth of the tube. The air in immediate contact with the flame becomes heated, expands, and rises. Colder and heavier air flows into its place, becomes heated in its turn, and consequently expands, and thus a continual circulation is kept up. Here we have the explanation of the fact that most of the ventilation of an ordinary room takes place up the chimney through the agency of the fire, and that in other cases ventilation can be secured by burning a fire at the bottom of a shaft, or, on a smaller scale, by burning gas flames at the bottom of a wide pipe, the upper end of which opens into the outside air. This latter method is applied to drying-closets for plates, and might also be applied to photographic dark-rooms.

## ACIDS, BASES, AND SALTS.

The acids are an extremely important and numerous class of compounds, and many of them were known and used long



before a science of chemistry was developed. They possess in common certain properties which distinguish them from other classes of compounds, and are not only important in themselves, but by their interaction with an entirely opposite class of substances called *bases*, they give rise to a still more numerous series of compounds which are termed *salts*. Some are of mineral, others of vegetable or animal origin; some are found in nature, others can only be prepared artificially. The mode of preparation and special properties of the more important acids will be described in detail in their appropriate places, and only the properties common to all acids will be discussed now. The composition of the acids has, of course, been determined by careful analysis. The following table gives the names of composition of the acids most important from a photographic point of view:—

Hydrobromic acid	.. ..	HBr.
Hydrochloric acid	.. ..	HCl.
Hydrocyanic acid	.. ..	HCN.
Hydriodic acid	.. ..	HI.
Hydrofluoric acid	.. ..	HF.
Acetic acid	.. ..	$\text{HC}_2\text{H}_3\text{O}_2$ .
Benzoic acid	.. ..	$\text{HC}_7\text{H}_5\text{O}_2$ .
Boric acid	.. ..	$\text{H}_3\text{BO}_3$ .
Carbonic acid	.. ..	$\text{H}_2\text{CO}_3$ .
Chromic acid	.. ..	$\text{H}_2\text{CrO}_4$ .
Citric acid	.. ..	$\text{H}_3\text{C}_6\text{H}_5\text{O}_7$ .
Gallic acid	.. ..	$\text{HC}_6\text{H}_5\text{O}_5$ .
Lactic acid	.. ..	$\text{HC}_3\text{H}_5\text{O}_3$ .
Nitric acid	.. ..	$\text{HNO}_3$ .
Nitrous acid	.. ..	$\text{HNO}_2$ .
Oxalic acid	.. ..	$\text{H}_2\text{C}_2\text{O}_4$ .
Phosphoric acid	.. ..	$\text{H}_3\text{PO}_4$ .
Sulphuric acid	.. ..	$\text{H}_2\text{SO}_4$ .
Sulphurous acid	.. ..	$\text{H}_2\text{SO}_3$ .
Tartaric acid	.. ..	$\text{H}_2\text{C}_4\text{H}_4\text{O}_6$ .
Thiosulphuric acid	.. ..	$\text{H}_2\text{S}_2\text{O}_3$ .
Tungstic acid	.. ..	$\text{H}_2\text{WO}_4$ .

Some of these, like hydrobromic, hydrochloric, hydriodic, and hydrofluoric acids, are gases which dissolve very readily in water, forming solutions which are strong acids, and from which the gas cannot be separated again by the action of heat alone. Others, like lactic, nitric, and sulphuric acid, are liquids, but boric, benzoic, citric, gallic, oxalic, phosphoric, tartaric, and the majority of the acids generally, are solids.

Notice that all the acids contain hydrogen. Some of them contain no oxygen and are termed the *hydracids*, whilst those which contain oxygen are termed *oxyacids*. They possess, however, the same general properties.

(To be continued.)

FERROTYPING is not pursued with the ardour of earlier days, but yet there are a few photographers who desire to try the old method. We are sometimes asked by these experimenters where instructions on the subject can be found; we can now refer them to a little handbook by H. Snowden Ward, "The Practical Ferrotyper," which gives all the information that can be desired relative to the various processes.

"AMATEUR PHOTOGRAPHER," 1890, PRIZE LANTERN SLIDES.—Secretaries of photographic societies and others wishing to have the loan of the above slides must send in their application as soon as possible. Three optional dates should be given. The "Prize Slides" will number 160. A full printed description will accompany them, and they will, therefore, make an excellent evening's entertainment. Applications, with stamped envelope enclosed for reply, must be endorsed "Loan of 1890 Lantern Slides," and addressed to—The Editor, AMATEUR PHOTOGRAPHER, 1, Creed Lane, London, E.C.

## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### CHAPTER IV.

#### PIONEERS OF INSTANTANEOUS PHOTOGRAPHY.

*Instantaneous Photography in the "Sixties."*—A sudden impulse seems to have been given to instantaneous photography just thirty years ago. In the volume of the *British Journal of Photography* for 1861 we find descriptions of no fewer than fourteen "instantaneous shutters." This impulse was doubtless due to the men whose labours we will now attempt to describe.

Of those who distinguished themselves by rapid work on wet collodion plates a quarter of a century ago, the names of Wilson, England, Breese, Stuart-Wortley, and Blanchard stand out prominently.

Awards were made at the International Exhibition of 1862, for instantaneous work to these workers as follows:—

Breese, C. S.—For a series of instantaneous views on glass of clouds, waves, etc.

Wilson, G. W.—For the beauty of his small pictures of clouds, shipping, waves, etc., from nature.

England, W.—Stereoscopic pictures of Paris (exhibited in name of the London Stereoscopic Co.)

Blanchard, V.—For a series of instantaneous views for the stereoscope.

Wortley, Stuart, Lieut.-Col.—For views of Vesuvius during the eruptions of 1861-62.

G. W. Wilson, of Aberdeen, made his rapid exposures by the simplest means. Removing the lens-cap, he hung his Scotch "bonnet" in its place. The shutter of the dark-slide was then drawn out, and the "bonnet" was then twitched off and replaced with a speed which in that skilful worker's hand was probably as little as one-sixth of a second. The following estimate\* of Wilson's work will give some idea of what his contemporaries thought of him:—

"Le Gray is the man who has spanned the gulf that separated photography from the fine arts. We regard him as the pioneer of the new era in photography, and Wilson and a few others have formed the advance-guard. When we look at Wilson's later productions, and see that water—usually so imperfect and naked in photographs—can be reproduced with all its undulations, its thousand lights and shadows faithfully portrayed; when we see it proven that the sun, generally regarded as so fierce in some of his moods, has calmly looked on while the daring photographer has 'taken a sight' at him, and even has smiled upon his efforts, and left the impress of his beaming face upon the sensitive plate; when cloudy sky and stormy sea can be portrayed with equal facility, we cannot help feeling that the future before us in photography lies in the perfecting of every means and appliance that can tend to make instantaneous pictures, of every size, easy of production."

*Breese and his Moonlight Pictures.*—Charles Breese commenced photography as an amateur in Birmingham. In 1861 some "moonlight effects" which he exhibited † attracted much attention. His work was almost entirely in the form of transparencies on glass for the stereoscope and the lantern, and he ultimately engaged in their production professionally. He died at Matlock in May, 1875. From slides in our own possession, and from others which we have examined, we can fully endorse the following obituary notice of Mr. Breese which appeared in the *Photographic News* for May 21st,

\* *British Journal of Photography*, 1st April, 1861, p. 121.

† *British Journal of Photography* for October 15th, 1861, p. 372.



1875: "Being but ill satisfied with the imperfect rendering which a paper print yielded of some scenes in nature's poetry, of which the negative contained a fairly complete register, he confined himself chiefly to the production of transparencies for the stereoscope, instantaneously produced, often of a daring nature: a breaking wave, a storm at sea, a balloon in the air, a sparkling waterfall, the rising or setting sun seen through rifts of driving clouds, moonlight scenes, groups of art objects, consisting all of polished silver and glass, and a variety of other subjects in which any special and unusual charm could be secured. His mode of printing his transparencies, generally on wet collodion and frequently from two or three negatives, was retained a secret."

It was claimed for Breese's "moonlight scenes," that they were really taken by the light of the moon, and many believed this. They were, of course, from instantaneous under-exposed negatives, in the production of which "Old Sol" had lent his customary aid.

*Stuart-Wortley, and Instantaneous Pictures on Large Plates.*—Lieut.-Colonel Stuart-Wortley (born 1832, died 1890) was one of the first to secure instantaneous pictures on large plates. He preferred the 12 by 10 size, and on wet collodion plates of this size, aided by Dallmeyer's triplet lenses, he secured the fine effects of volcanic eruptions, and sea and cloud views, which were much admired in the Exhibition of 1862.

*Blanchard's Instantaneous Views of London in 1862.*—Valentine Blanchard has been continuously before the photographic world as a capable and distinguished worker since 1861. In that year we find him writing on "Intensifying Processes as Adjuncts to Instantaneous Photography."\* In 1862 he recommends bromides for use in collodion, in addition to iodides.† In the same year Blanchard published three sets of stereoscopic views (the stereoscope was then in high favour, and was to be found on every drawing-room table)—"Instantaneous Views of London," "The Attractions of a Country Fair," and "The Inundation in the Fens." To quote a contemporary review‡ of one picture from the London set only—"New Oxford Street, looking East," is first-rate in execution. Omnibuses, carts, cabs, waggons, and foot passengers in shoals, in active movement, are all 'arrested.' One Hansom cab alone, in the right-hand corner, is blurred in outline, and this seems to have come suddenly round the corner into the view. In the immediate foreground is a man, without his coat, wheeling a barrow, his left leg poised in mid-air, in the act of stepping; just in front of him is an omnibus, on the back panel of which is observable the placard, 'All the Way, 3d.,' and on the outside front seat, to the right, is a gentleman wearing a white hat, with a black hatband; while on the other side of the driver a passenger is evidently turning to address him. One individual in a black suit, with his hands in his pockets, and looking on excellent terms with himself, is sauntering towards the spectator. The whole scene is full of life, and the photography leaves nothing to be desired."

Mr. Blanchard's first exposure shutter consisted of a ledge of wood just under the lens, on which rested a flat piece of wood covering the lens. To make the exposure, this flat piece was quickly raised and replaced.

*England's Instantaneous Views of Paris in 1861.*—Mr. William England made his debut before the Photographic Society of London on 4th March, 1862,§ when he exhibited a series of lantern slides, consisting of "instantaneous

street scenes in Paris, etc. The perfect definition of the moving figures was very striking, notwithstanding the great enlargement, and illustrated the perfect instantaneity of the exposure. The majority were produced by Mr. Dallmeyer's quick-acting stereoscopic lens of  $3\frac{1}{2}$  ins. focus, with a stop of about half an inch diameter.\* The clouds were all natural. The lens was uncovered and covered as rapidly as could be effected, which was done best by a shutter inside the camera."

At the next meeting of the Society, Mr. England gave a detailed account of his method of procedure.† He employed wet collodion plates, using a large proportion of a bromide, and a neutral silver bath. A very strong iron developer was used; and the plates were intensified with pyro and silver.

*England's Shutter next the Plate.*—The report adds:—"The dark-slide used in obtaining the instantaneous negatives was exhibited. Instead of adopting the usual method of covering and uncovering the lens, Mr. England uses a shutter on the inside of his camera, forming part of the dark-slide. It consists of a shutter having a slot the whole length of the plate. The lower part of this shutter, before the exposure, covers the whole of the plate; on touching a small lever, it is released, and falls rapidly by its own weight, after the principle of the guillotine; in falling, the long aperture or slot passes over the plate, giving in its passage a rapid exposure to every part of the plate, which is again covered by the upper part of the shutter. The slot may be widened or contracted at will, so as to control in some degree the amount of exposure given to the plate."

This is an excellent form of shutter, and it is now in use by some of our best workers.

At the opening of the Exhibition of 1862 Mr. England had a "special tower of wood and baize" erected within the Ceremonial Hall, from which he secured instantaneous pictures of the distinguished party which had assembled on the platform around Her Majesty and the Prince Consort.

From the date named (1862) down to the present time, Mr. England has continued to add yearly to the splendid series of Continental views—especially of Swiss and Alpine scenery—in connection with which his name is best known to photographers.

*Other "Rapid" Workers in the "Sixties."*—The names mentioned in the preceding paragraph are those of a few representative men only. There were several others who at that period—how long ago it seems!—were doing good work in the same direction. Of Vernon Heath's cloud studies, as shown at the Photographic Society's Exhibition in 1869, the *Times* critic remarked: "Taken instantaneously, they represent the forms and massings of clouds in windy weather, with an exactness which the painter cannot hope to rival in dealing with such evanescent and changing subject-matter."

In addition to these workers we may note the names of Samuel Fry, W. Harding-Warner, Frank Haes, and A. Harman, as doing notably good instantaneous work under all the difficulties and disadvantages which those who followed that branch of our art laboured under thirty years ago.

(To be continued.)



TRAVELLING STUDENTSHIP PHOTOGRAPHS.—On Friday and Saturday of last week there was an amateur photographic exhibition held at Leyburn in the grounds of the Hon. John Dundas, when the Travelling Studentship Competition prints were also on view. Amongst the other objects of interest were four portraits of women over 100 years old.

\* *British Journal of Photography* for April 1st, 1861, p. 121.

† *British Journal* for 1862, p. 196.

‡ *British Journal* for October 15th, 1862, p. 382.

§ *Photographic Journal*, vol. viii., p. 4. See also *Photographic News* for May 31st, 1861, p. 264.

\* That is,  $f/7$ .—W. J. H.

† *Photographic Journal*, vol. viii., p. 24.



## The Stereoscope.—XII.

BY VALENTINE BLANCHARD.

It must be remembered that though a separation of  $3\frac{3}{4}$  ins. from centre to centre is quite possible when necessary, and that stereoscopic relief is still obtained in the most perfect manner in a properly constructed stereoscope, such a separation would make it almost impossible to see the picture stereoscopically with the eyes alone unaided by the instrument. The writer has found that beyond  $2\frac{1}{2}$  ins. of separation the difficulty of properly combining the two pictures so as to produce true relief without the help of the stereoscope is increased enormously with each extra extension of distance, no matter how slight.

Let us now proceed to deal with the prints that have been produced from negatives taken by the usual twin-lens stereoscope. Of course, the simplest plan would be to cut the negative in half and reverse the two pictures, when the method of mounting recommended in the last chapter could be adopted, or suitable cut-out masks could be laid over the negatives, and then the print would only need trimming in the ordinary way before mounting it on cardboard of suitable size.

The reason for reversing the pictures has been fully dealt with in chapter 7, page 105; but for those who are unwilling to cut their negatives as just proposed, and who desire to mount them in the old orthodox fashion, it may be well to reproduce here the diagram used to illustrate the theory of the inversion of the image, for too much cannot be said about the importance of care absolutely necessary when trimming and mounting the stereoscopic pictures.

Lay the prints face downwards, and make a faint pencil mark in the centre as shown in the following diagram, and then trim the print top and bottom, taking care that the horizontal lines in the picture are truly so in the trimmed print. The sides may now be trimmed and the picture cut through the centre, of course trimming away as much of the picture as is necessary to include exactly the same amount of subject in each picture.

The best plan for the amateur would be to get several gauges of varying sizes made by a glass cutter. By folding the picture in half, face outwards, and holding it up to the light in order to see that the two pictures register exactly, one cutting will serve for both pictures if a sharp knife be employed, and glass or zinc be used to cut upon. Now a reference to the two diagrams will show how impossible it is to make a mistake if the directions are carefully followed. The first diagram shows the pencil mark in centre. This must be lightly made, and, of course, not

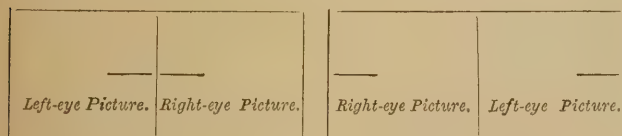


FIG. 11.

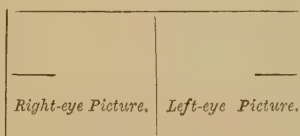


FIG. 12.

in the sky, but in a dark part of the picture, for the line might show if made on the highest lights. When the print is transposed it will be seen that the lines no longer touch. In mounting, therefore, the lines must come to the outer edge. Of course, the theory which renders this transposition necessary has been fully dealt with in the earlier portions of this subject. For the moment, therefore, the amateur has simple to remember that "if the lines are never permitted to join again the picture must be correct for the stereoscope."

Sufficient has been said, it is hoped, to make the preparation of paper slides for the stereoscope quite easy to the

amateur. He finds that he is not bound down to follow the old proportions for his slides, but, on the contrary, has considerable license allowed him for the exercise of his taste.

Glass transparencies, however, are without doubt the most beautiful kind of photographs for use in the stereoscope, and we will therefore proceed to describe the best methods for their production.

The introduction of dry plates has made this form of stereoscopic slide very simple indeed, when compared with the old methods by the use of wet collodion, or the old albumen process; though, perhaps, for beauty of tone these old processes will never be surpassed.

The simplest method is one that was not at all available with wet plates. It is to cut the negative, as directed above, when the twin-lens camera has been used for its production, and transpose them in the printing frame; and, perhaps, the best instrument for this purpose would be one of the dark-slides with the black partition removed. Lay the transposed pieces in the slide in the usual way, that is, film uppermost, and on this a thin black paper mask of suitable proportions. This is indispensable for the protection of the negative if many copies are needed. On this lay the sensitive plate, and then the partition with the spring to hold both plates firmly in position. Of course, a very sensitive plate cannot be exposed to daylight, unless special precautions are taken. If the camera to which the slide belongs is a long-focus one, extend it as much as possible, and place a piece of white cardboard at an angle of 45 degs., so as to reflect white light on to the focussing screen. Put the head under the focussing cloth, and see if the light is uniform in quality up to the edges. If not, it may be necessary to remove one of the lenses if the rectilinear form be employed. The object, of course, is not to have any focus, but to throw white light as direct as possible, and then the small separation between the two glass surfaces caused by the paper mask will produce no appreciable loss of definition, but will be an improvement in the pictorial effect of the slide. By this method an exposure under control can be arranged, and, besides, the work can be carried on by daylight.

For work by gas or lamp light, in order to secure the same effect, it will be necessary to make the exposure not less than 6 ft. from the light; indeed, 10 ft. would be better, for, of course, the more parallel the light the smaller will be the loss of sharpness. Of course, the length of exposure will increase considerably at the longer distance; but one or two experiments will determine it, and, if the light is constant, no further trouble will be experienced.

In making transparencies from two quarter-plates transposed as directed, and placed side by side in a printing-frame, it will be important to use for the bed of the frame thin plate-glass without any scratches or bubbles to mar the effect, for, of course, every mark or spot shows when exposed to the naked flame. The effect is exactly the same as direct sunlight. Ground-glass or oiled paper would remedy the evil, but the exposure would be immensely increased. In using the ordinary printing-frame, it will be important to protect the sensitive film from all light until the moment for exposure to the flame comes. This can be done without much difficulty in several ways. It can be put in a light-tight box, or carefully wrapped in the focussing cloth until ready for exposure. In every case use the mask of thin black paper, or in a very short space of time a very valuable negative may be, if not wholly destroyed, at least seriously damaged.

It is not deemed necessary to go into the question of developers or toning formulae here. Those recommended for lantern-slides will answer admirably; and the same care will not be needed to keep clear glass in the high lights, for, of course, the first thing to aim at is to produce a perfectly



harmonious picture, and in many kinds of subject to secure this result there will be no bare glass whatever. Hydroquinone has been found by the writer to give the nearest approach to the warm, black colour so much admired in Ferrier's slides in bygone days, and is therefore recommended for experiment.

For those who do not wish to cut their negatives, the copying camera becomes necessary, for by the use of it only—of course, with two lenses—can the necessary transposition be made without separation. This has all been explained at page 105.

Copying cameras at fairly cheap rates are advertised by several makers; but for stereoscopic work some alterations will, of course, be necessary. They are usually made of the bellows form for extending considerably, but for stereoscopic work it will be necessary that they extend in front of the lenses as far as they are behind them, and a partition must be carefully fitted both before and behind. If the lens be 6 in. in focus, the bellows must extend 12 in., both before and behind. In every case, to make a picture of the exact size of the negative, the camera both before and behind the lenses must extend to double their focal length. An arrangement must also be provided for the separation of the lenses from each other when necessary. With such a camera carefully prepared for the work, the lenses used for the production of the negatives may be employed for the transparencies. Of course, in order to properly illuminate the picture, a piece of white cardboard must be placed at an angle of 45 degs. just immediately in front of the negative.

(To be continued.)



## Apparatus.

### THE GEM PNEUMATIC DROP SHUTTER.

MR. ALFRED DEWEY, of Sidcup, Kent, has kindly given us an opportunity of examining his new form of shutter. It is, perhaps, one of the simplest in the market, and is shown in the accompanying illustration:—



The construction is simple, but the shutter is well made, and in its action is thoroughly reliable. The drop is not actuated by elastic bands or springs, and we do not see that there is any possibility of the shutter getting out of order. The following is the maker's description:—"For time exposures, place the buttons A and E in the positions represented in illustration and set the shutter, then squeeze the ball firmly and hold it squeezed as long as necessary for the exposure. For instantaneous exposures, place the button A under the spring B, and for very rapid exposures place the spring C the other side of screw D; this will be found to give an exposure about 1-300th part of a second; the button E, when placed over the spring B, will be found very useful for long exposures, such as interiors, also for keeping the

aperture open during focussing, etc." The prices range from 7s. 6d. upwards, and the shutter can be purchased of any dealer in the kingdom.

### A NEW COMBINED CLAMPING SCREW AND PLUMB-BOB LEVEL FOR PHOTOGRAPHIC CAMERA STANDS.

THIS invention is intended to take the place of the thumb or T screw, at present in use for clamping together the camera and its tripod stand, and is arranged to give in one motion both the true transverse and longitudinal levels to the base plate of camera. As will be seen by the annexed drawing, the apparatus consists of a brass, steel, or other metal pendant of a triangular section (lettered C on drawing), about four or five inches long, and each face of the triangle about one quarter of an inch broad. The upper end of the pendant forms the clamping screw, with a T head or a head with thumb wings, as may be required. The screw-head is slightly counter-sunk to give a true bearing against the bottom of the camera stand seat; and from a small counter-sunk hole in the screw-head there is suspended a silk cord and small metal plumb-bob. When the pendant is true plumb, the plumbing-line or cord hangs true to one edge of the triangular pendant, as shown on drawing—this edge being indicated by the tapered point of pendant. The clamping-screw being screwed in at right angles to the seat of stand and base of camera, the plumb-bob and pendant will, of course, give the true transverse and longitudinal levels to the camera. The apparatus is quickly and simply adjusted—in one-fifth the time occupied in using a spirit-level or other method—and the moving of one leg of the stand is sufficient to give both levels. The pendant, when hanging out of plumb, indicates which leg requires adjusting. The triangular section gives it great strength, combined with lightness, and when properly made it cannot get out of order. In taking pictures where upright and level lines are absolutely necessary, or even in ordinary landscape work, this apparatus should prove a very useful aid to the amateur and professional. It is so very efficient and yet simple that every stand should be provided with one. By a slight alteration the plumb-line may be made detachable to apply to the swing-back. The inventor is Mr. Duncan Cameron, architect, Inverness, who, we understand, is taking out patent rights for it.



SECTION

The following will explain references in figure:—

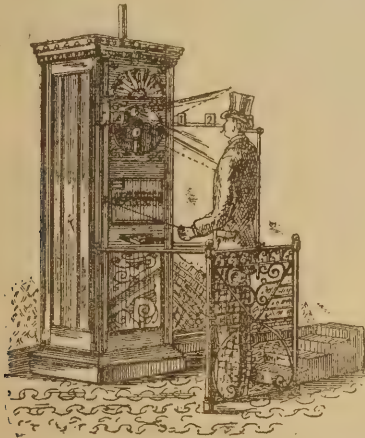
- A. Clamping screw to bind camera to stand.
- B. T head or thumb wing head to turn screw.
- C. Triangular pendant solid with screw and head.
- D. Plumb-bob and silk cord giving true plumb down one edge of the triangular pendant.

### AUTOMATIC PHOTOGRAPHIC APPARATUS.

THE following is the claim of Mr. J. Steffens, of Chicago, for a patent:—(1) The combination, in an automatic photographic apparatus, of a camera, a shutter for the lens, means for producing an actinic light, and apparatus for removing and finishing the exposed plate, substantially as specified. (2) The combination, in an automatic photographic apparatus, of a camera, a shutter for the lens, mechanism for removing the plate after being exposed, means for holding and igniting a powder for producing an actinic light, and mechanism for supplying a charge of powder after each exposure, substantially as specified. (3) The combination, in an automatic photographic apparatus, of a camera, mechanism for exposing the plate, mechanism for removing and finishing the plate, means for producing an actinic light, and mechanism for controlling the operation of the apparatus by a predetermined weight, as a coin, substantially as specified. (4) In an automatic photographic apparatus, the combination with a flash pan and magazine containing actinic powder, of a rotating arm G, carrying a cup and mechanism for rotating said arm after the ignition of each charge on the said flash pan, substantially at and for the purpose specified. (5) In an automatic photographic apparatus, the combination with



a rotating arm for charging the flash pan from a magazine of an electro-magnet H and an armature h, having pins h' and h'', for controlling the movements of the arm, substantially as specified. (6) In an automatic photographic apparatus, the combination with a magazine F, a rotating arm G, mechanism for controlling the movements of said arm, and a cup on said arm, having a moveable button, of a flash pan E and a projection e'', whereby the charge is deposited at a predetermined point on said pan, substantially as and for the purpose specified. (7) In an automatic photographic apparatus, the combination with the circuit wire or wires for controlling the mechanisms of said apparatus, of a wheel K, having a tray k, and electrical contact points adapted to be brought into engagement by the rocking of said wheel, substantially as and for the purpose specified. (8) In an automatic photographic apparatus, the combination with the circuit wire or wires c, wheel K, having an arm k and contact points k'' and m'', of an electro-magnet L and armature



L' having pins l' and l'', substantially as specified. (9) In an automatic photographic apparatus, the combination with a camera and mechanism for removing the plate from the camera, of carrying tapes R R', and means for developing and fixing the image on the plate, and a motor for driving the tapes, substantially as and for the purpose set forth. (10) In an automatic photographic apparatus, the combination with mechanism for exposing and finishing a photographic plate, of mechanism for controlling the operation of the apparatus by a weight, as a coin, and means, as at N, for opening and closing the circuit by which the apparatus is controlled, substantially as specified. (11) In an automatic photographic apparatus, the combination with a pan, as S', having the protecting chambers, of travelling tapes R R', substantially as and for the purpose specified.

## Science Notes.

*Comptes Rendus* for October 13th contains an account of a photograph of the Ring Nebula in *Lyra*, recently made at the Algiers Observatory, the time of exposure being six hours. Its enlargement, sixty-four times the size of the original negative, has been made, which is the largest picture of any nebula yet obtained. The photograph proves the interior of the ring to contain matter of some kind which is hardly visible through the most powerful telescopes, but which sensibly affects the photographic plate. Three very feeble stars are also seen inside the ring in the photograph, and these have never before been observed.

M. B. Baillaud has photographed an area of three square degrees in the neighbourhood of this same (Ring) nebula, giving an exposure of nine hours. The plate contains about 4,800 stars!

The International Committee of the Photographic Chart of the Heavens will meet in Paris on March 31st, 1891. Details will then be discussed, and the actual work will be begun by all the observatories which have agreed to take part in the work, immediately afterwards.

Professor Heilprin, of Philadelphia, has achieved no small feat in photographing the crater on the top of Orizaba, in Mexico—"the most symmetrical cone of the North American continent," and whose height is 18,206 feet. The party, which included eleven guides and four scientists, were "on the march," during the ascent and descent, for fifteen consecutive hours.

The price of metallic platinum is this month (October) eighty shillings per ounce, net, or about half-a-crown per ounce above that of pure gold. In July, 1889, the price was thirty-two shillings per ounce; and in January of the present year, fifty-six shillings per ounce. Thus the increase of price has been very rapid. The principal sources of the metal are the mines in the Ural Mountains, where it has been worked by the Russian Government since 1828. It is believed that large deposits of platinum exist in East Russia, and it is probable that the present high price will lead to new mines being opened out. All lovers of that most artistic of photographic printing processes—the platinotype—will devoutly echo this wish.

I have been printing with primuline, which sounds prettier and more alliterative than to say that I have been experimenting with the process which the inventor (Mr. Green, of the firm of Green, Cross, and Bevan) has chosen to call "diazotype." The whole thing is very easy. You first dye some calico yellow, by means of a pretty primrose coal-tar dye (primuline), manufactured by the firm of Brookes, Simpson, and Spiller, Atlas Works, Hackney, London. Then you sensitise the said yellow calico by dipping it into an acid solution of nitrite of soda. Then you rinse, dry, and print under a *positive* (for the process gives a positive from a positive; and a negative from a negative) for ten or fifteen minutes. Lastly, you develop by means of eikonogen (black tones), pyro (brown), beta-naphthol (red), resorcin (orange), or naphthylamine (purple), according to the colour you wish the finished picture to be. A final rinse in water, and the work of art (?) is finished.

The process is still very young, and the results are promising rather than good; but to workers who love to experiment, the method will be found most interesting.

The detective camera appears to be playing quite a conspicuous part in Irish politics. Hitherto it has been solely the weapon of the "patriots;" but from newspaper reports it appears that Mr. Balfour is being accompanied on his latest Irish trip by a friend who wields the "weapon" with deadly effect! Is he a member of the Camera Club?

It has lately been stated—by Mr. Cowan and other authorities—that exposure of the plate to a faint white light during or towards the end of the process of development has the effect of bringing out more detail, and, practically, of producing the same effect as a lengthened exposure. Twenty or thirty years ago—when the average exposure was certainly ten times longer than at present—it was a favourite "dodge" with many workers to give the plate a "supplementary exposure"—in the camera—after the regular exposure on the object to be photographed, but before development. Methods of giving such supplementary exposures were actually thought worth patenting; and patent No. 1593 for 1867 (F. B. Gage) describes how—"The photographic impression is taken in the usual way; then some plain dark dead surface is placed in front of the camera, the sensitive plate still remaining in the camera. The covering (lens-cap) is removed from the lens-tube and the sensitive plate is exposed to the light reflected from the dark surface, while the dark surface is kept in gentle motion. For a dark dead surface, a piece of thick black woollen cloth is attached by one edge to a stick. This is held horizontally and gently moved in front of the camera with the left hand, while the lens is uncapped with the right hand."

We may laugh at this idea, but there is no doubt that such a "dodge" helps to relieve intense contrasts; and to ameliorate the "soot and whitewash" effects which are obtained when brief exposures have to be given under unfavourable conditions. Those who are forced to attempt such work during the "dark days" that we have at this time of the year to expect, might try the effect of giving a few seconds "supplementary exposure" in the manner described above.

F. G. S.

**LANTERN SLIDES: HOW TO MAKE THEM.**—Mr. A. R. Dresser, who is known all over the country for his hand-camera work, and for his excellent reproduction of his pictures as lantern slides, has written a little handbook under the above title, and it is published as one of the "Fry's Photographic Manuals." Mr. Dresser treats the matter in a highly practical manner, dealing with the various processes of printing, developing, toning, etc., as only one who has had a wide experience in lantern-slide manufacture can do. We can thoroughly recommend the little brochure to those who are desirous of utilising their spare time during the coming winter in the manufacture of lantern slides.



## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

MR. MASKELL presided at the weekly meeting of the Club last week, and none of the members having brought up any novelty to show, he at once called on Mr. Humphery for his paper on the "Production of Positives and Negatives."

Mr. Humphery is nothing if not jocose, and his introduction of the theme of consideration did him credit, for he provoked the most unadulterated mirth on the part of his audience by a series of jokes which require his characteristic narration to be fully appreciated, so I will not spoil them by putting them on paper. There was one, however, which will lose nothing by the repetition, and will probably come home to most amateurs, at any rate those who are members of a society. Speaking of the title of the paper, he said that the members of the Camera Club were already past-masters of positives and negatives—positive that theirs was the only method of doing a thing, and when asked to praise the work of another a certain negative was the result. He said he proposed to tell them how he managed to secure positives direct from positives, and negatives from negatives. The method he had adopted was to put an ordinary plate (Ilford) under the negative or positive, as the case might be, expose it for eight seconds or longer to daylight, and then develop it in a developer diluted with about eight times the usual quantity of water. The best result was obtained with pyro. and sulphite of soda. With respect to one specimen he showed, the lecturer said, to avoid the effects of halation the plate and negative were placed in the frame back to back, and the result was one which "would delight the new sort of lunatics" who believed in the destruction of detail. There was a great laugh at this hit, but it passed over without any further notice being taken of it. The Chairman asked Mr. Humphery if he had a print from the negative, but the answer was a disappointment, whilst another member asked if the pictures were going to Pall Mall next year. The Hon. Secretary remarked, *sotto voce*, that imitation was the sincerest flattery. The lecturer admitted that he had not got perfect results yet, and that all the plates were more or less fogged, but he believed that if the right exposure could be found that fault would be remedied. He was of opinion that if the matter were worked out the results would be of great advantage.

In reply to the Chairman, the lecturer said that the reversed negatives obtained by the process would be of great use in photo-mechanical processes, the method of securing them being much simpler than that now employed.

Dr. Patterson thought the process would be useful in transfereotype. Mr. Lyonel Clark pointed out that Claudet, in 1842 or 1843, drew attention to the same subject before the Royal Society, and in more recent times a most remarkable and valuable paper on the same subject had been read before the Physical Society. The reversal of the image, he said, had probably happened to most of them; and there I think most photographers will agree with him, having in their mind the many plates they have spoilt from that cause. He had got perhaps better results himself by developing his plate and then opening the dark-room picture, when the reversal took place visibly. The Rev. F. C. Lambert pointed out that the reproduced negatives would be useful in the carbon process. The fog might be due to the spread of light before the plate. The Chairman himself had once had a somewhat similar result on a plate, part of which had evidently been exposed to light before it was exposed on the picture. Mr. Davison felt that the serious objection was that they were bound to get a fog on the plate. Mr. Charters White, on the other hand, was under the impression that the method had been worked commercially. Major Nott hoped they would all experiment on the subject, which was clearly one on which they were at present all in the dark, and he drew attention to a cause of the frequent failure of bromide prints from lowering of the whites. It was due to the ordinary form of the printing frame which allowed light to penetrate the glass from the ends, and so to fog the picture. Mr. Ferrero said he had found a remedy for this by putting the frame in a negative box, in the lid of which a hole was cut to admit the light to the front of the frame. Mr. Willis, by exposing a plate behind a negative in a copying camera (lens  $f/8$ ), had got a fairly clean positive free from fog.

It was also stated during the evening that after one reversal a

further exposure made the plate revert to the original state, and a yet longer exposure produced a third reversal. Referring to this, Mr. Green said he made exposures behind one negative varying from three seconds to one hour, and in every case he got a positive. Mr. Corbould pointed out that Mr. Bolas had secured reversals by treating the plate before exposure with bichromate of potash. Mr. Humphery said he found that practically the whole secret of success lay in the developer. If a developer of ordinary strength were used fog would result. Mr. Sturmev had experimented with cold-bath platinotype paper, and he found decided signs of reversal, though it was not perfect. Mr. Maskell said he had tried to get a reversal, on an old plan, by treating paper with sulphite of copper and bichromate of potash, but he had never been able to get the yellow colour showing reversal. Mr. Willis suggested that if the solution had been acidified with sulphuric acid the desired result might possibly have been attained.

A vote of thanks having been passed to Mr. Humphery, the proceedings terminated.

On Thursday, Nov. 6th, Mr. J. Gale will read a paper entitled "Country Rambles with a Camera." The paper will be illustrated by lantern slides. Meeting at 8.30 p.m.

## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRMINGHAM PHOT. SOC.**—An ordinary meeting of the above Society was held at the Club-rooms, on the 23rd inst., the President (Mr. J. B. Stone, J.P., F.G.S.) in the chair. A vote of thanks was passed to Mr. Harold Baker, for a splendid set of slides he had presented to the Society. Mr. Taylor exhibited a metal binder by Mr. Hughes, of London. Mr. J. B. Stone's slides were then passed through—from pictures he had taken while on tour with the Vesey Club in Norway. Slides were also shown by Messrs. Owen, Thomason, Titley, Underwood, Harrison, Palethorpe, Jaques, Baxter, Pickard, Leeson; and about 40 were kindly sent down by Messrs. Mawson and Swan.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—On the 23rd inst. the President was to have given a demonstration on "Lantern Slide Making," but owing to illness was unable to be present. A very pleasant evening with the lantern was, however, spent, the Editor of the AMATEUR PHOTOGRAPHER having lent some slides. Others by Messrs. Coade, Everett, Hoskins, and Stevens were also shown, and a fine series of platinotype prints was exhibited by Dr. Reynolds, one of the party who recently accompanied Mr. Paul Lange to Iceland. At the next meeting, on November 6th, Mr. Dresser will give a lantern lecture on "A Tour in Brittany."

**CREWE AM. PHOT. SOC.**—The October meeting of the above was held on the 23rd inst., the President (Rev. W. G. Rainsford, M.A.) in the chair. It was agreed to hold a soirée, exhibition of work and lantern slides, at the annual meeting fixed for Thursday evening, January 8th, 1891. The President gave a very interesting and instructive sketch of his recent tour to "Norway," illustrated by a splendid show of original slides.

**CROYDON CAMERA CLUB.**—The fortnightly meeting was held on the 24th inst., the President (Mr. Maclean) in the chair. The main attraction of the evening was the lantern show, which had been provided by the Assistant Hon. Secretary (Mr. A. Underhill). In the course of the evening the election of two new members was confirmed. The next meeting will be held on Monday, November 10th, the subject for consideration being "Enlarging."

**DUNDEE AND EAST OF SCOTLAND PHOT. ASSOC.**—The members of this association visited Stonehaven, the ruins of Dunnottar Castle, and other places of interest in the neighbourhood on the 15th inst. The party, which numbered between sixty and seventy, arrived at 10.23, and were driven to the respective places in two brakes. The weather being excellent, the party enjoyed a pleasant day, and were able to secure a number of fine views.

**GLASGOW AND WEST OF SCOTLAND AM. PHOT. ASSOC.**—The first monthly meeting for the season was held in the rooms, 180,



West Regent Street, on the 20th inst., when twenty-four new members were elected. A paper on "Hand-Camera Work," by Mr. John Morison, jun., was of special interest, and, after an exhibition of novelties, the lantern was brought into requisition for slides from "Hand-Camera Work," and some exceedingly good work was shown.

**HACKNEY PHOT: SOC:—**The ordinary meeting was held on the 23rd inst., Dr. Roland Smith presiding. Results from the Fry Manufacturing Co.'s samples were handed round, and from the fact that one or two shown were the work of beginners good results would appear to be easy to arrive at. Mr. Jno. Howson gave a most interesting lecture and demonstration on "Alpha Paper, Printing and Developing."

**HOLBORN CAMERA CLUB:—**On the 24th inst., Mr. T. O. Dear in the chair, lantern slides by Messrs. Chang, Thorpe, Thompson, and Bayston were shown. Prints on Fallowfield's Aristotype, and the Blackfriars Company's Celerotype paper were passed round and approved.

**KEIGHLEY AND DISTRICT PHOT: ASSOC:—**At a meeting of the members of the above association on the 21st inst., Mr. Alex. Keighley (President) in the chair, Mr. Heaps gave a demonstration of "Lantern Slide and Transparency Making."

**LEITH AM: PHOT: ASSOC:—**On the 29th inst., the Boston (U.S.A.) Camera Club slides, "The White Mountains of New Hampshire," were shown to an appreciative audience, in Kinraid's Hall, Kirkgate.

**NOTTS AM: PHOT: ASSOC:—**The seventh annual meeting was held on the 20th inst., Mr. S. Wells (Vice-President) occupying the chair. Mr. Burrows brought forward a motion to increase the subscription to one guinea per annum, and, after a very animated discussion, it was passed by a majority of two-thirds. The following officers for the ensuing year were elected:—Mr. S. Wells, President; Mr. G. E. Williamson and Mr. G. E. Smith, Vice-Presidents; Mr. B. Sturges Dodd, Hon. Treasurer; Mr. P. E. Knight, Hon. Secretary. Committee: Messrs. R. S. Armitage, W. Burrows, T. Carnell, F. Hodgson, J. C. Lancaster, J. Furley Lewis, A. Pickard, T. S. Piggin, J. Spray, W. Towers, M. Tuquet, and H. A. A. Wigley.

**MAIDSTONE AM: PHOT: SOC:—**Selections from the photographs which the members of this Society have taken during the past season have been adjudicated upon by a London expert, with the result that the first prize has been awarded to Mr. H. Sandland, J.P., of Thurnham, and the second to Mr. H. Bear, of Maidstone.

**PHOT: SOC: OF IRELAND:—**A special general meeting of this Society was held on the 23rd inst., Professor J. Alfred Scott, M.B., Vice-President, in the chair. The Chairman said that meeting had been summoned in accordance with the notice sent to members to authorise the addition to the existing rules of the following:—"That any person elected a member during the months of October, November, and December shall not be liable to a further subscription in the January next following;" and also:—"That this meeting hereby authorises the Treasurer to remit the entrance fee to all elected members after this date until December 31st, 1891." The altera-

tions were agreed to. The meeting was then resolved into an ordinary meeting, and Professor Scott gave his demonstration on "Making Photo-micrographs."

**ST. BARTHOLOMEW'S HOSPITAL PHOT: SOC:—**Dr. Russell, F.R.S., delivered the inaugural address to this Society on the 22nd inst., when he pointed out how the work of the members might be made of great use in medicine and surgery, and then dealt at some length with the action of light on chloride of silver in the plate and in sensitized paper. Round the room were placed some specimens of the members' work, which reflected considerable credit upon them.

**TOYNBEE CAMERA CLUB:—**At the meeting on the 21st October, Mr. H. T. Malby gave a very successful demonstration on "Printing under Green Glass," and conclusively showed that there were distinct advantages in the process.

**WEST LONDON PHOT: SOC:—**An ordinary meeting took place on the 24th inst., when Mr. C. Bilton (the retiring President), in a few well-chosen words, introduced Mr. W. A. Brown, who had been elected to the office for the year 1890-91. Mr. Brown, in the course of his inaugural address, dealt with the progress of photography from its discovery. Afterwards some interesting slides were shown. At the next meeting, November 14th, Mr. Jones will give a demonstration on "Printing in Platinum."

**WEST SURREY AM: PHOT: SOC:—**The second fortnightly meeting of the winter session of the above Society was held on the 22nd inst. Mr. G. Davison delivered an exceedingly interesting lecture on "What to Avoid in Picture-making," illustrating his remarks by reference to numerous examples of his own work. The next meeting will be held on the 5th November, when Mr. Calland will give a lecture and demonstration of platinum toning.

**WOOLWICH AND DISTRICT PHOT: SOC:—**The fortnightly meeting was held on the 23rd inst., Mr. Kemp in the chair. Mr. Desforges read a very instructive paper on "The Use of Stops and Diaphragms," giving a brief description of the various combinations of lenses, and showing the use and abuse of stops. The resignation of Mr. Harris, the Hon. Secretary, was received with regret. It was decided that the next and following meetings should be held in the Y.M.C.A. rooms, the Conduit Road, Plumstead, and the subscription was finally fixed at 1s. 6d. a quarter, or 5s. per annum.

**DAGUERRE'S TOMB:—**We have pleasure in acknowledging a subscription of ten shillings from "Curator."

**LANTERN SLIDES, 1890:—**We cannot acknowledge all the applications for these; but next week will fix the dates and advise each applicant; in every case efforts will be made to book the slides for a date named, but this cannot be guaranteed. All applications must be received on or before Thursday next, November 6th.

**THE DRAYTON DEVELOPER:—**Messrs. W. H. Humphries and Co., of 268, Upper Street, Islington, N., write to correct an error on the part of "Aletes" regarding the Drayton developer (Answer 4197). It is, they say, made and supplied solely by them, the word "Drayton" being the special designation of their goods.

## EXHIBITIONS.

SOCIETY.	Place.	Open.	Close.	Address of Secretary.
Phot: Soc: of Great Britain	London.	Sept. 29.	Nov. 12.	E. Cocking, 5A, Pall Mall East, S.W.
Bury Phot: Arts Club	Manchester.	Sept. —.	Jan. —.	C. G. Virgo, Art Gallery, Manchester.
Wolverhampton Phot: Soc:	Bury	Oct. 28.	Nov. 3.	Roger Wood, 190, Bolton Street, Bury.
Edinburgh Phot: Soc:	Wolverhampton.	Nov. 10.	Nov. 15.	J. W. Evans, 52, Darlington St., Wolverhampton.
Tunbridge Wells Am: Phot: Soc:	Edinburgh.	Nov. 14.	Jan. 7.	Thomas Barclay, 180, Dalkeith Road, Edinburgh.
Phot: Soc: of India	Tunbridge Wells.	Nov. 26.	Nov. 29.	Joseph Chamberlain, 14, Calverley Park Gardens, Tunbridge Wells.
Ventnor, I.W.	Calcutta.	Dec. —.	—	Exhibition Committee, Asiatic Society's Buildings, Calcutta.
Darlington Phot: Soc:	Ventnor.	Jan. 19.	Jan. 24.	W. Hoskin, Lit: and Sci: Institution, Ventnor.
Liverpool Am: Phot: Assoc:	Darlington.	Feb. —	—	P. W. Forster, Elmbank, Darlington.
Gloucestershire Phot: Soc:	Liverpool.	Mar. 6.	April 4.	T. S. Mayne, 3, Lord Street, Liverpool.
Vienna Club of Am: Phot:	Gloucester.	April 17.	April 27.	A. H. Clinch, Bank Buildings, Southgate Street, Gloucester.
	Vienna.	April 30.	May 31.	Carl Srna, VII., Stifftgasse 1, Vienna.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4273. **Decoudun's Photometer and Enlarging.**—I remember reading somewhere an article or letter upon the "Decoudun Photometer" as an aid in estimating exposures for enlargements. I have searched exhaustively without success. Will anyone kindly help me to find same, or with information, or state their experiences on the subject of gauging exposures for enlargements on the various papers, etc., by any known photometer?—**BAULKED.**

4279. **Bromide Paper, Developer for.**—Will someone kindly oblige me by telling me the best developer for bromide prints (hydroquinone preferred, using Eastman's paper), and also how to obtain pure whites?—**ABORIGINAL.**

4280. **Lantern.**—Will someone kindly recommend me a lantern (magic), one that would be used chiefly at home, but suitable for a small entertainment (single lantern preferred)?—**ABORIGINAL.**

4281. **Prints Discolouring.**—Will someone tell me the reason of my prints, after toning to a good purple, changing again to a disagreeable brown in the after-processes of washing and fixing? Can the salt water after toning affect the change? I use an ordinary borax solution, 6 gr. of borax to the ounce of water, and 1 gr. of gold per sheet, making the bath to about 12 oz.—**CUST.**

4282. **Prints Curling.**—What is the best way to prevent unmounted prints from curling tightly up? I find pressing and drying between blotting paper no good. Is ordinary pink blotting paper injurious to the prints?—**CUST.**

4283. **Britannia Paper.**—Will someone who uses Marion's Britannia paper for ordinary silver printing kindly give me their experience? Can good purple tones be got from it? Can anyone recommend me a better paper than this?—**CUST.**

4284. **Hand-Cameras.**—Which is the best and simplest to work? If several equally good, give names and address. Is quarter-plate the largest size made?—**CAMERA.**

4285. **Lenses.**—Will anyone help me to select from among the following makers for the purchase of a whole-plate lens? I know nothing of English lenses or lens makers, but having looked through innumerable catalogues I find, for the price I can afford to give, I could get a lens from any of these makers—Swift, Beck, Wray, or Taylor and Hobson. Will someone advise me where to purchase?—**HEINRICH.**

4286. **Silver Printing.**—Which is the best paper to get for silver printing, one that gives good purple tones, prints quickly, and does not lose much tone in the after-processes?—**HEINRICH.**

4287. **Christmas Day Slides.**—Will some of our readers kindly inform me where the lantern slides, "Christmas Day in the Workhouse," can be purchased, together with cost and number of slides?—**EARNEST.**

4288. **Village Blacksmith.**—Can any of your readers inform me where I will be able to obtain a good set of slides to accompany the "Village Blacksmith"?—**EARNEST.**

4289. **Developer.**

No. 1.	
Hydroquinone ... ..	160 gr.
Sod. sulphite ... ..	2 oz.
Citric acid .. ...	60 gr.

Potass. bro. ... ..	40 gr.
Water, to ... ..	20 oz.
No. 2.	
Sodium hydrate... ..	160 gr.
Water, to ... ..	20 oz.

What part does the sodium sulphite play in the above formula? What chemical change takes place in this substance after exposure to the air, and how would it affect the above developer?—**IRIS.**

4290. **Half-plate Camera.**—Will someone kindly give me their opinion as to the worth of Lancashire half-plate camera, made, I think, by Tomlinson, stating the probable cost, and whether it is reversible or not?—**EARNEST.**

4291. **Lens.**—I have a lens (rapid rectilinear) by a leading manufacturer, advertised to cover 8 by 5. In practice I find it covers barely 7 by 5. The mount seems rather a longish one, and I am told that if I have it shortened so that the glasses are brought nearer to each other, I shall get greater covering power. Is this correct? If so, any hints as to the amount gained by a given reduction of length would be very acceptable. Would cutting down the mount damage in any way the other qualities of the lens, which, but for the above-mentioned defect, is a splendid piece of apparatus?—**IRIS.**

4292. **Mounting Aristotype Prints.**—Have tried indiarubber solution, as per Mr. Wall's "Dictionary," but it seems to have no sticking powers, as I cannot get the prints to adhere to the mounts. Would someone kindly inform me where the fault lies, or give me another formula, so that I can paste all the back of the prints, and not the edges only?—**WINTER.**

4293. **Light.**—Can anyone tell me where to find or how to obtain a table of the relative exposures for the different hours of the day, and different months of the year?—**J. W. W.**

4294. **Bromide Paper.**—Would any photographer kindly tell me if the Eastman paper is developed by hydroquinone? Will it be permanent, or is it likely to stain or blister?—**T. B. J.**

4295. **Alpha Paper.**—I have developed the above in hydroquinone, after washing, toned in acetate bath, but can only get an olive-green tone when fixed. Could any reader suggest anything?—**T. B. J.**

4296. **Mounting with Stickphast.**—I have mounted a batch of prints with stickphast paste. Can anyone tell me if it is likely to injure them?—**A. DE VEELOPER.**

4297. **Films.**—Will some amateur kindly answer the following:—(1) What is the relative rapidity between the Eastman rollable celluloid films and the Ilford red label dry plates? (2) Can the former be obtained of slower rapidity, i.e., for cap exposures? (3) Do the Eastman Company make flat films out to sizes? If so, are they the best, and if not, whose are?—**J. W. W.**

4298. **Reducing Camera.**—Can anyone recommend a good reducing camera for making lantern slides from half-plate negatives, and price of same? Is Vever's a reliable one?—**H. N.**

4299. **Hydroquinone Formula.**—Will someone give me a good hydroquinone formula for developing Fry's lantern plates?—**H. N.**

4300. **Lens.**—Will someone tell me if the lens in the International camera is a good one?—**HALF-PLATE.**

4301. **Background.**—I have got one of Dyson's backgrounds, light blue. I want to paint some interior on it. What would be the most suitable colour to paint it? An answer will greatly oblige.—**HALF-PLATE.**

4302. **Bellows.**—Will someone kindly inform me the best way of making bellows for copying camera, 12 by 10, and to extend out to 30 ins.—**A. J. R.**

4303. **Toning Aristotype Prints.**—What is the best formula to obtain purple-brown tones on above paper?—**WINTER.**

## QUERIES UNANSWERED.

Oct. 3rd.—Nos. 4217, 4218.  
10th.—No. 4229.  
17th.—Nos. 4239, 4241, 4250, 4251, 4253, 4254.  
4260, 4261.  
24th.—Nos. 4268, 4270, 4271, 4272, 4275, 4277.

## ANSWERS.

4207. **Rivot's Paper.**—I tried this some time ago, but did not like the colour of the prints; otherwise it works very well.—**J. H.**

4249. **Hypo Stains in Bottles.**—I can recommend a certain and cheap way. Simply put in the bottle, to about a third of its capacity, some red or silver sand, fill to a little more than half with cold water, cork and shake, not too vigorously, allowing the sand to scrape the bottle. This will make both toning and hypo bottles look like new in a few minutes. The same sand will do for all, but, of course, the hypo bottles last.—**H. S. LARGE.**

4249. **Hypo Stains in Bottles.**—A very small quantity of dilute hydrochloric acid will make the bottle quite clear.—**J. H.**

4263. **Italy, etc.**—Much information can be found

in the May number of the Ilford Co.'s *Scraps*, and if you ask, they will send you a copy.—**J. H.**

4263. **Italy, etc.**—In answer to Charles Bell's question whether it is possible to photograph in Italy without permission, I can inform him that last May, and also the previous year, I photographed with a 5 by 4 Shew's eclipse camera, in Milan, Verona, Venice—wherever I pleased—on the top of Milan Cathedral, the Campanile at Venice, and never had the smallest interference or annoyance of any kind, and the same returning by Germany.—**L. E. R.**

4264. **Mounts.**—No doubt the mountant you use is faulty, and not suitable for mounting prints which have been squeezed on glass. There is at present in the market a new mountant, which is just what you require.—**JIM.**

4265. **Black Tones.**—Fine black tones can be obtained with the following bath:—

Tungstate of soda ... ..	100 gr.
Chloride of gold... ..	4 "
Water ... ..	20 oz.

4265. **Black Tones.**—Should advise your dropping the acetate bath and using the borax. I have given over and over again in these columns a good borax formula. Here it is again:—

Stock Solution.	
Best powdered borax ... ..	1 oz.
Water ... ..	2 qt.

Dissolve the borax in about 10 oz. of hot water, then fill up with cold to make 2 qt. Take 8 oz. of this to 1 gr. of gold, which is sufficient to tone one sheet of paper. The solution can be used immediately it is made up, and should be used just warm.—**W. A. J. CROKE.**

4266. **Burnisher.**—You will find Sutcliffe's burnishers very useful and durable. I have found Tylar's Reliable burnisher very good indeed. If you want a better make I should advise you going to W. Watson and Sons, 313, High Holborn.—**ALF.**

4267. **Lubricator.**—You will find Castile soap alone the best lubricator. Get a lump of the soap and a piece of cotton wool, rub the cotton wool on the soap, and then on the photograph to be burnished.—**W. A. J. CROKE.**

4267. **Lubricator.**—You cannot use a better lubricator for prints than methylated spirits and Castile soap. It is better than all that paste.—**ALFRED R.**

4269. **Kodak, No. 3.**—My experience is, if you require a hand-camera which will show exactly the picture to be taken, that McKellen's detective camera (made by Marion and Co.) is the best. It can be purchased fitted with "The Eastman Roll-Holder." The great advantage is that the picture, exactly as it passes through the lens, is reflected upon a glass screen the full size as it will be taken. Thus no finder is required, and you can focus to a nicety. Nor is there any doubt about getting the picture in the centre of the plate, as, directly it is correctly placed, a spindle is touched, and the picture is taken. An artist friend of mine exposed 1,000 films in Italy and 300 in Egypt, and from them obtained an invaluable collection of enlargements about 16 by 12 in Eastman bromide paper, which he uses as studies. Would be willing to forward specimens.—**A. C. N. (address with Editor.)**

4273. **Screw v. Rack.**—The latter is no doubt the best and strongest, and generally all large cameras have this, and from 10 by 8 downwards the screw is used; and of the two I think it is the most convenient for focussing.—**JIM.**

4274. **Burnishing.**—You should mount your prints a day before burnishing, as, if not, they are damp, and get scraped off the mounts during the operation of burnishing. Rub your prints with a piece of cotton wool that has been rubbed on Castile soap (see answer No. 4267 in this issue). If your prints are quite dry and your machine dry you should have no bother. Most probably you do not get your machine hot enough, and possibly your steel bar is not high enough up to the roller. If not, you will not get sufficient pressure. Do you use gas or oil for heating?—**W. A. J. CROKE.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us **BEFORE TUESDAY MORNING'S POST** if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED: AM: PHOT:**

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**M. Z. H.**—You will find hand-camera 1 the cheapest and best for your purpose. No. 3 is more expensive than the one you write about.

**B. THORNTON (St. Petersburg).**—The camera you are using is a good one, and with the lens usually supplied you should have got better results than you appear to have done, judging by the print sent us. You have hardly a sharp line in the photo-



graph. The lens should give you a bright, clean, and sharp picture.

H. L. WRIGHT.—Your negatives are much over-exposed, and they have been forced in development. With the plates you use you require almost absolutely correct exposure to ensure making a decent negative. The exposure for No. 1 should not have exceeded  $\frac{1}{4}$  of a sec., and No. 2 about the same.

H. I. L. J. M.—(1) No. (2) A capital shutter, and well worth fitting. (3) Use B, and don't buy foreign plates, when English productions are every whit as good. (4) No; concentrated developers are a mistake. (5) Metabisulphite of potash is only used as a preservative of pyrogallol. (6) If you do, buy "Platinum Toning."

W. M.—If you are doing well with 1, why not advise your friend to use them? They are certainly as good as 2. The views are very fair, and correctly exposed; a little less deeply printed; but the view is much too extensive for quarter-plate work.

R. GORDON.—A very good colour. You cannot do better than use ferrous oxalate. The exposure is the factor.

JAS. HUDSON.—It is absurd to send a list of sixteen makes of plates. Use either 8, 1, 9, 3 slow, or 11, 14, 15, or 13 quick. You seem to have done well with 11. Keep to it, and the pyro and ammonia. You will then turn out excellent work, with good definition and gradation. Please don't write such long letters.

VERHAM.—We do not advise dealing with S. Buy through the "Sale and Exchange." See note re "Reporting." L, you would be safe in going to them. Not worth wasting the time upon. The effect may be secured by pointing the lens to the sun.

NEDRA.—(1) Both very good; possibly A is the best finished. (2) The  $\frac{5}{8}$  for preference, though  $\frac{5}{16}$  will take them. (3) Light to dark. (4) The most useful book ever published. (5) Yes, A. Not to any extent. Buy "Lantern Slides, How to Make Them" (Dresser), 6d., just published. (6) C is far away the best plate of the three.

N. P. G.—Faulty sensitising of the paper we should say, unless the "blotch" is in the same place, in which case the fault would be in the negative. The print is admirable, and the negative must be a good one. We know very little of the camera named, and do not know at all what lens is fitted to it.

COLOUR-SERGEANT.—Your work is really very fair, and except that you should have backed the plate, the interior of St. John's is quite up to much that is entered for competition. You might have continued exposure for another ten minutes with such a small stop as f/45, developed the plate slowly, and so brought out more detail. The prints were not thoroughly fixed before toning, hence the stain. The copy of the Daguerreotype, if more carefully printed, will be very good.

G. H.—We shall name the developers that may be used. Glad to hear that you will go into the competition.

NO NAME.—Your questions are not inserted, as you have omitted to give name or address.

JOHN WALLS.—Quite impossible; the slides are not in our hands until the 22nd November, and have to be judged and catalogued, etc. Send other and optional dates, at once.

M. S. DAVID.—Your opal plates were received broken and almost pulverised; it is impossible to pass any opinion upon them. You should have used the same developer as for bromide paper, the best being ferrous oxalate.

PUZZLED AMATEUR.—(1) Fresh developer should be used with each plate, but why use 3 oz. for a half-plate? (2) Why did you use "chloride ammonium?" Burton's is the best formula for intensification.

Bichloride of mercury ... 1 oz.  
Water ... 10 "

After use wash the negative and treat with ammonia solution, one or two drops to the ounce of water, until sufficient density is secured. (3) Your negatives are useless; the film has got wet, and nothing will ever make them fit to print from. (4) No. (5) Use them to glaze a forcing frame; no one will buy them.

CURATOR.—Very many thanks. Your views are "our views" this time. We acknowledge your kind subscription in another column.

J. P. A.—Send us particulars of the developer you are using, and the make of opal plates.

JOHN PRICE.—Note with pleasure that you will enter the developers competition.

J. SMITH.—Very glad that the lantern-slides gave such pleasure.

G. G. BAGSTER (Vienna).—Thank you very much. We have made use of the information.

LEWIS. C. E. GLADSTONE.—See "Our Views."

WEARISIDE.—The negatives seem of very good average quality; but we cannot compliment you upon the tone, which is too blue a purple. The best matt-surface tone is a Payne Jennings brown. Prints are returned. The interior No. 1 is the best print.

HARRY HOLT.—There is no intention to publish a "Prize Tour" number. Do not mix up communications to the Publisher with those that should be

sent to the Editor. We had no wish that you should pay carriage upon the box sent in mistake by us. The empty has been received, but at the time of writing we were not aware of it.

G. F. ZIMMER.—It is a difficult matter; but we thank you for your very kind intentions.

A. D. GUTHRIE.—Thank you so much. Will write to you in a post or two.

H. HARGRAVE GRAHAM.—We will get your matter settled next week. We should like to see the "clever machine," and could, no doubt, find someone who would be glad of it.

G. C. KIRLEY.—We shall be pleased to loan you 50 or 100 slides, and will send conditions. We have had several hundreds given us, which are at the service of Sunday Schools, etc.

CHARLES W. COE.—Our thanks are doubtless due; pray accept them. If the print was sent in to one of our "Monthly Competitions," it would not be returned. All prints are retained, see entry forms.

INQUISITIVE.—(1) D. C. (2) M. K. F. L. (3) We never recommend apparatus by name.

H. S. W. E.—(1) Due to the fact that there is either hyposulphite in the paper, of which the album is made, or that you have not sufficiently washed the prints. (2) See AMATEUR PHOTOGRAPHER, vol. x., November 15th, or "Dictionary of Photography" (Wall), page 255, formula 20. (3) You must really explain what you mean by "bisulphite of soda." (4) Depends upon the density of your negative, 10 secs. at a distance of one foot from an ordinary gas burner. Use the borax bath for purple tones.

W. B. P.—We do not trace any other.

A. D. FORT.—Nothing to beat A, 4, 5, or 2. B. Certainly, 4 is the best, then 3, 1, 2.

BUXTON.—Yes.

INDIARUBBER.—(1) After developing, clear, and then fix. Best to perform both operations in non-actinic light. (2) We believe the latter. (3) No.

ERNEST T. BOND.—Both A and B have been described in the AMATEUR PHOTOGRAPHER, (A) vol. xi., June 13th, and *Photographic Societies' Reporter*, May 31st. (B) AMATEUR PHOTOGRAPHER, vol. vi., Dec. 16th. We should say that B is the most likely instrument for your purpose.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

## DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer."—A large quantity of AMATEUR PHOTOGRAPHERS; what offers?—Cartledge, Birkendale, Sheffield.

Cameras, etc.—Watson's Acme camera, with 3 double backs, 10 by 8, brass-bound, with stand, cases, set of Ross' lenses, etc., nearly new.—For list and prices apply, Dr. Wardrop, 13, Western Parade, Southsea.

Whole-plate camera, Sands and Hunter's, perfect condition, all improvements, three double backs, Ross' lens; £5 5s. — Laprimaudaye, Three Bridges, Sussex.

Half-plate camera, folding tailboard, R.R. lens, cheap view lens, tripod, dark-slide, two printing frames, 60 numbers AMATEUR PHOTOGRAPHER, 18 numbers Ball's "Story of Heavens;" price £3 10s., or offers.—Harms, Merrow, Guildford.

Cameras, Lenses, etc.—Meagher's whole-plate camera, latest improvements, three double backs, Dallmeyer's 10 by 8 R. landscape and  $\frac{8}{15}$  by  $\frac{6}{15}$  R.E. lenses, Thornton-Pickard time shutter, leather case, all new beginning of season; cost £29 10s.; what offers?—R. Winter, Percy Gardens, Tynemouth.

Lancaster's International quarter-plate camera, with lens, tripod, instantaneous shutter, dark-slide, two printing frames, burnisher (5 in.), etc., good as new.—R. Jones, 9, Patmos Street, Liverpool.

Hand-Cameras.—Kodak, No. 2, unopened, perfect; cost £7; cash offers.—E. D. Salt, Maplewell, Loughborough.

A No. 2 Kodak camera, complete, in good order, quite new, only a few times used, about half the first film still on roller, ready for use; will take £5 5s.; original price £7.—Apply to M., Lawley's Library, 3, Exhibition Road, S.W.

Kodak, No. 4 Junior, takes pictures 5 by 4. quite new from Eastman Company, loaded with transparent film, 40 exposures; price 9 guineas; cost £10 7s. 6d.—W., 2, Woodland Place, Ealing, London, W.

Lantern Negatives.—Lantern negatives, foreign views; samples 8d.; 4s. 9d. dozen. — Marchant, 87, Asylum Road, Peckham.

Lantern Slides.—One dozen coloured photographs, illustrating "The Mad Gardener's Song" in Lewis Carroll's "Sylvie and Bruno;" 10s. 6d. free.—John Smith, Winton House, Winchester.

Lenses.—Rapid rectilinear half-plate lens, very fine definition, for views, portraits, and architecture, guaranteed; take 30s.; approval.—Lawrence, Bridge House, Fore Street, Edmonton.

Optimus 7 by 5 W.A. rectilinear, perfect, as new; 40s.; approval.—Broadbent, 174, Lumb Lane, Bradford.

Lenses, etc.—Optimus 5 by 4 rapid rectilinear, adapter to fit Lancaster's Instantograph, 27s.; Lancaster's 1889 quarter Instantograph, complete, one extra dark-slide, slide protectors, 37s.; sundries—G., 21, Cross Street, Woolwich.

7 by 5 rapid rectilinear, and Thornton-Pickard time and instantaneous shutter, new, 42s. 6d.; Vever's quarter rectilinear, 15s.; half-plate view lens, 7s. 6d.; canvas case for whole-plate camera, 10s.; three fold stand, 15s.—T. Hall, Pinfold Lane, Lancaster.

Wray's half-plate R.R. lens, loose stops, price 55s., nearly new; also half-plate mahogany studio camera (by Sands and Hunter), cost 25s., price 9s.—E. Turnbull, 75, Smedley Road, Cheetham, Manchester.

Negatives.—Fifty instantaneous quarter-plate negatives, views of London, suitable for making lantern slides from; price 1s. 6d. each; specimen print and list, six stamps.—John Stabb, 139, Queen's Road, Bayswater.

Set.—Quarter-plate Instantograph, complete, good condition; 25s.—Hand, 11, Banim Street, Hammer-smith.

Stereoscopic Camera, etc.—Stereoscopic camera (Bland's), with fine pair lenses, stand, focussing screen, two dark-slides, two negative boxes; offers.—T., 27, Gipsy Hill.

## WANTED.

Cameras, etc.—Whole-plate square camera, or 10 by 8, all latest improvements, three double backs and tripod, Optimus 3B portrait lens, Dallmeyer's 3D or 4D portrait and group lens, must be in perfect order.—Aspin, Clayton-le-Moors, Lancashire.

Half-plate camera, oblong preferred, three slides.—W. Wilkinson, Chidswell, Dewsbury.

Dark-Room.—An amateur wants to rent a dark-room, with water laid on, by the month; must be near Hyde Park or Piccadilly.—No. 82, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Dark-Slide.—A dark-slide, 12 by 10, for Lancaster's Miltum-in-Parvo enlarging camera.—Price, etc., to E. B., Surrey House, Station Road, Margate.

Hand-Camera.—One of the larger-sized Kodaks, must be in good condition.—Edward Pullman, Godalming.

Lens, etc.—Cabinet portrait lens, by good maker, will take Editor's opinion; also 12 by 10 old box camera.—R. Simpson, Farnley Wood, Gildersdale, Leeds.

Prize Pictures.—"The AMATEUR PHOTOGRAPHER Prize Picture" No. 1, must be unsold.—A. E. Smith, 53, Schubert Road, Putney.

Stereoscopic Camera.—Stereoscopic camera, Chadwick's Pocket one preferred, for cash; no dealers.—F. Houghton, 32, Clapton Common, N.E.



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## NOTICES TO SUBSCRIBERS.

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**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

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**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS of the *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

- |  |         |
|--|---------|
| No. 18.—INLAND SCENERY, LANDSCAPE        | Nov. 1. |
| " 19.—SEASCAPE AND RIVER SCENERY         | Dec. 1. |
| " 20.—PORTRAITURE AND FIGURE STUDY       | Jan. 1. |
| " 21.—ANIMALS AND INSTANTANEOUS SUBJECTS | Feb. 1. |

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM: PHOT*:

All photographs for any of the above competitions will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, "*Amateur Photographer*," 1, Creed Lane, Ludgate Hill, London, E.C.

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PHOTOGRAPHIC QUARTERLY,

OCTOBER, 1890.

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THE CANTILEVER ENLARGING APPARATUS—Illustrated Pamphlet, 16 pp., describes the Instrument, its Uses and Applications, Enlarging, Instructions, Exposure, Vignetting, Masking, Clouds, Transparencies, etc.—WILLIAM HUME, Scientific Instrument Maker, 1, W. College Street, Edinburgh.



# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645  
Telegraphic Address: VINEY, LONDON

Offices: 1, Gored Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 318.]

FRIDAY, NOVEMBER 7, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—Shakespeare.

WE have received more entries for No. 18 Monthly Competition, "Inland Scenery," than for any previous competition that has ever been promoted by the AMATEUR PHOTOGRAPHER. No less than 172 prints have come to hand, and of these certainly quite 50 per cent. are really first-class work. The adjudication upon such a collection of photographs has been most difficult, and we have determined to give two Silver and two Bronze Medals, as follows:—

*First Silver Medal.*—ARNOLD J. CLEAVER (Liverpool).

This prize print is of "Beaver Pool, Bettws-y-Coed," and is a most perfect photograph of a charming spot, the foliage in foreground lending a setting to the pool in the mid-distance, and the stream and hills in the extreme distance. The view was taken with a Dallmeyer's single landscape lens, *f*/32, with an exposure of 12 secs. at 4 p.m. on a dull day in July, on an Ilford plate, and printed on a bromide card developed with ferrous oxalate.

*Second Silver Medal.*—DAVID CAMERON (Glasgow).

This competitor takes a prize for a view on Loch Lomond, "Ben Lomond, from Luss." The composition of this picture is equal to any of Green's lake studies. It was taken with Taylor, Taylor, and Hobson's R.R. lens, *f*/32, in diffused sunlight, with an exposure on an Ilford plate of 1½ secs. The print is on bromide paper, and the half tones are well rendered.

*First Bronze Medal.*—P. ENNIS (Richmond).

This photograph, "On the Wandle, Carshalton," is a happy treatment of an every-day view, with two girl figures introduced with much judgment. An Optimus R.R. lens was used on an Ilford plate, the print being platinotype (hot-bath).

*Second Bronze Medal.*—D. G. PINKNEY (Enfield).

In the photograph contributed the competitor has made a picture of a subject close at home, taken early in the morning, "Clay Hill, Enfield," with an Optimus R.R. lens on a Wratten's instantaneous plate, with an exposure of 1 sec., using stop *f*/22.

There are really so many admirable photographs that it is impossible for us to call attention to anything like the number that merit a word in these columns, but we must point to a few, and leave the rest to be dealt with in the *Photographic Reporter*. "After a storm—on the Northern Heights of London," by A. R. F. Evershed (Hampstead), an almost perfect rendering of such a scene, but with clouds

that do not accord with the lighting of the original picture and, what is worse, pencil touches on the print; to our mind this was not needed, and is not legitimate. Mr. Alfred J. Jeffreys (Chelmsford) contributes a charming study, "An Autumn Evening," after Constable; and that it is the work of an artist we feel assured, if for no other reason from the fact that the stems and foliage are put in bodily upon the print, and without doubt local colour introduced. "The Old Church by the Mill," contributed by Mr. C. Court Cole (Oxford), is an admirable rendering of a beautiful spot spoilt by a figure in the foreground, which also lacks interest. "Pass of the Trossachs," a well-chosen view, by Mr. Cecil V. Shadbolt (Chiselhurst), showing most careful work. "In the Vale of Llangollen" is a carefully selected view, by Mr. G. J. Wightman (Lewes), which was taken during the Convention. Mr. Thos. A. S. Scott (Dorking) contributes an admirable view taken in the "Gorge of Aar, Meiringen, Switzerland." The print is on Jacoby's Direct Printing Platinum Paper. "On the Fringe of the Forest," by Mr. Charles Emanuel (London), is a well-selected study. "The Farmyard," by Mr. H. Martin (New Southgate), shows careful composition and selection; and so we might go on. These photographs clearly show us that the ability to produce good work is far more general than it was twelve months ago, and that the "Monthly Competitions" have stimulated many to strive and produce pictures with success.

Every one of the prints sent in will be criticised in the *Reporter*, and if more support is given to that publication, more photographs will be reproduced. We hope every competitor will become a subscriber, and so help us to do even more than we are doing to make the *Reporter* a first-class photographic magazine.

\* \* \* \*

WITH reference to the *Reporter*, we have pleasure in stating that the collotype frontispiece, "Fountains Abbey," has been executed by our printers, Messrs. Hazell, Watson, and Viney, Ltd., who have added a photo-reproduction department to their already extensive business. This has been done in order, first, that the work may be under our immediate supervision, and secondly, that we may be in a position to secure the very best results that the experience of a staff of lithographic artists must ensure.

\* \* \* \*

THE use of a detective camera is not always followed by pleasant consequences. The hand-camera has been fre-



quently *en évidence* in Ireland, and we hear that two pages of the November issue of the *Review of Reviews* is to be devoted to "snap-shots" secured by Mr. F. Hindley, with the "Facile" camera, at Tipperary. But in Tuesday's *Standard* the report of the "Tipperary Trials" tells of the trouble that befell one P. O'Brien, who first refused to remove his camera (a "Kodak") from a ledge on which he placed it, and afterwards adjusted it and took an instantaneous photograph of a witness in court, in opposition to strong views expressed by the sitting magistrates. The Court ruled that the "Kodak" should be given up; efforts were made to obtain possession of it by the officers of the court, but the O'Brien hung on. After much persuasion it was given up to counsel, and the O'Brien was told that "without an ample expression of regret the magistrates would hold that there had been contempt of court;" but the manipulator of the offending "Kodak," true to the pertinacity of his race, would not express regret at having photographed a witness in court, and as a result he was addressed in the following language by the Bench:—

"Mr. Patrick O'Brien, we regret the incident that has occurred. You have abused the privilege of cross-examination by taking a photograph of a witness at the time you were engaged in interrogating him, and you have done this in violation of a pledge which you had given a short time previously on the magistrates being about to order that the camera should be removed from court, and you have still further aggravated your offence by declining to express any regret for the contempt of court of which you have been guilty. Under these circumstances, we have no alternative but to endeavour to uphold the dignity and respect of a Court of Justice so far as lies in our power. We adjudicate that you have been guilty of a gross contempt of court, and we sentence you to imprisonment in Clonmel Gaol for seven days from this date."

Whether he will be allowed the company of his dearly beloved "Kodak" whilst in durance vile, we know not, but one thing we should like to know, how that photograph taken in court "comes out."

\* \* \* \*

THE arrangements for the important triennial exhibition at Liverpool are, we understand, making good progress. The exhibition will be held in the Walker Art Gallery, the use of which has been granted by the Liverpool Corporation, the same suite of five rooms—so admirably adapted for exhibition purposes—as were used in 1888 having been secured. The opening is fixed for Friday, March 6th, 1891. Full particulars will appear in the advertisement pages of this journal. In the conditions, Clause 7, a special reference was made to the important matter of judges, and certainly in the gentlemen selected, the Liverpool Association have done their best. The names speak for themselves—Capt. Abney, J. Gale, H. P. Robinson, Andrew Pringle, J. P. Gibson, and Watmough Webster.

\* \* \* \*

WE are pleased to be able to supplement our notes upon the series of articles on "Photo-Micrography," to be contributed by Mr. Andrew Pringle; and to add that they will commence early in December, and that Mr. Pringle has kindly volunteered during the publication of the articles to *answer any questions that may be asked under the head of photo-micrography*. We feel sure that this kindly action of Mr. Pringle will be greatly appreciated by many of our readers.

\* \* \* \*

INTENDING competitors in the "1890 Lantern Slide Competition" will be glad to hear that the following gentlemen have consented to act as judges: Mr. W. England, Mr. J. Gale, Mr. C. Hussey, and Major Nott. As at present arranged, the slides will be judged on the 27th or 28th of

this month, and the awards published in the *AMATEUR PHOTOGRAPHER* of December 5th. It will help us very much if competitors will send in their slides at as early a date as possible.

\* \* \* \*

WE have just received a card from the Fine Art Insurance Company, which has been formed under the trusteeship of Lord Northbrook, Lord Wharnclyffe, and Mr. William Agnew, and a strong Board of Directors. The object of the Company is, as its title denotes, to insure works of art in private houses, picture galleries, studios, etc. Special arrangements have been made to facilitate the insuring of valuable collections of photographs. The rates in approved private houses will be as low as 3s. 6d. per cent. per annum. The Secretary (Mr. C. G. Hay, 28, Corohill, London, E.C.) will give further particulars.

\* \* \* \*

A PHOTOGRAPHIC society has been formed at Barnstaple under the presidency of the Rev. Thomas Newton, LL.D.; and Mr. A. C. King, of 18, Hills View, Barnstaple, has been elected Hon. Secretary. We are sure many in the town and district will avail themselves of the opportunity of enjoying the advantages of the society.

\* \* \* \*

WE have a series of articles promised by the Rev. T. Perkins, entitled "Photographic Work for the Winter Months." The first part will be "Out-door Work—Artistic." Further particulars will be announced.

\* \* \* \*

WE are very glad to note that the Staffordshire Potteries Amateur Photographic Society are doing a good work. During this week the members are giving a public exhibition of lantern slides. The Mayor of Burslem will take the chair. The Honorary Secretaries are arranging to give "lantern shows" at both the workhouse and infirmary during the winter months. Such shows give much pleasure to the poor inmates, who have but little chance of seeing the beauties of nature, to whom life must often be a weary burden.

\* \* \* \*

THE Oxford Photographic Society have favoured us with a copy of their programme for the next six months. Several good papers are to be read. Mr. E. A. Ryman Hall has been re-elected President. At the last meeting four new members were elected.

\* \* \* \*

A CORRESPONDENT writing from Coventry says:—

"I think it a good thing that our attempts should be criticised in the friendly manner usual to yourself. I have been a subscriber to your most valuable paper for many years, but this is the first time I have sent in to your competitions, except once when I was too late through no fault of mine. Your paper is an absolute *necessity* to amateurs, and we are deeply indebted to you."

\* \* \* \*

WE note that Dr. Roland Smith will give a demonstration upon "Kallitype" paper before the members of the Hackney Photographic Society on the 27th inst. This paper has many good qualities, and we have before us, at the time of writing, a very excellent print. There appears to us to be an admirable future for it, and any of our readers who like soft-grey prints will do well to try "Kallitype."

\* \* \* \*

THE Liverpool Amateur Photographic Association held their monthly meeting on the 30th ult., under the presi-



dency of Mr. Paul Lange. We understand that there was a crowded attendance, and that during the year no less than 46 new members have been elected. The members, whether owing to the example set them by their genial President or some other cause, are most enthusiastic, and support the schemes of the Council to further photography with their whole heart.

\* \* \* \*

THE reports of photographic societies are interesting *only* when the information given is of recent date, and we must ask secretaries and others to send their reports, as brief as possible, to us within, at most, seven days of the meeting held. We have before us now the report of a meeting held on the 21st ult., which reached us on the afternoon of the 3rd inst. The news is "stale and unprofitable," and is therefore not inserted.

\* \* \* \*

No further applications can be entertained for the 1890 lantern slides until the middle of April, 1891. All available dates are filled up, and due advice will be given to the applicants who have been fortunate enough to secure the loan of the slides.

\* \* \* \*

WE are anxious to secure as many entries as possible for our "Holidays with the Camera" Competition, and shall be pleased to send entry forms to secretaries of societies for distribution amongst members; also entry forms for the "Monthly Competitions," which are attracting much attention, especially as every print is ably criticised in the *Photographic Reporter*. In addition to the chance of being awarded a medal, the competitors have the chance of their contribution being made famous by the reproduction of it in the *Reporter*. We may again remind our readers that there are two distinct competitions every month—the one open to *bona fide* amateur photographers only, and the other restricted entirely to the work of professional photographers. We regret that up to date this latter class hang back terribly.

\* \* \* \*

A CORRESPONDENT writes:—"I have been asked by the Sunday Lecture Society, Langham Place, to give a lecture upon 'Athletics in their Relation to Public Health,' and need some slides illustrating ancient and modern athletic sports, more especially instantaneous effects near the winning-post. If among your Prize Lantern-slides you have a few such as I describe, I should be glad of the loan of them, as I find great difficulty in procuring such in the trade. The lecture is fixed for Sunday, January 11th, 1891." We will, of course, collect what we have, but perhaps our readers can assist with the loan of slides, which will help to make the lecture interesting; if so, would they kindly send them to us?

\* \* \* \*

WE have received the report of examinations held by the City and Guilds of London Institute, and note that in photography ninety-four candidates sent in papers. In "honours" five passed first, two second, and one failed. In "ordinary," twenty-six first, twenty-six second, and thirty-four failed; the percentage of failures was 37.2. The best work has been done by candidates who have been "taught in classes receiving grants on the results of the examination."



EDINBURGH PHOTOGRAPHIC EXHIBITION.—The Editor of the AMATEUR PHOTOGRAPHER will be "at home" at the Waterloo Hotel, Prince's Street, Edinburgh, on Friday, the 14th inst., from 3 to 6 o'clock, and will be pleased to welcome anyone interested in photography.

## Negatives and Positives.

AN Austrian sculptor named BEER has discovered, so it is stated, the secret of liquifying marble in such a manner that it can be cast like bronze. To these mould-made marbles light and shade may be added by the application of BERYL (*i.e.*, the liquified marble) in small quantities. In many minds *Beer* suggests *skittles*, but in this case "*marbles*" would be more appropriate.

\* \* \* \*

IT will be a matter of gratification to all who knew and revered the late Bishop of Durham, to learn that Sir Edgar Boehm is engaged upon a recumbent statue of Dr. Light-foot, which will be placed in Durham Cathedral.

\* \* \* \*

HENRI REGNAULT's famous portrait of Marshal Prim, which recently somewhat mysteriously disappeared from the Louvre, is to be re-hung in its former place. The history of this work is interesting to photographers, seeing that it was painted almost entirely from photographs, and when finished was inspected by the Marshal, who asked the artist why he had made him look like a coal-heaver. This remark scarcely pleased M. Régnault, who carried off the painting from Madrid. It was subsequently (1869) exhibited in the Salon, and consequently bought by the State.

\* \* \* \*

WE learn with something of regret that the present Pastel Exhibition is to be the last exhibition open to the general public held in the Grosvenor Gallery, because those rooms are to be absorbed by the Grosvenor Club. It has occurred to us more than once that these rooms would have furnished ample wall space for an exhibition of photographs where everything could be seen in comfort, and with a fair show of justice to the work. As a broad general rule, the horizon of a picture should not be hung higher than the eye of a standing or lower than the eye of a seated adult spectator. It is neither common-sense nor common justice to either the exhibitor or spectator to hang frames so low down that one has to kneel on the floor in order to examine them.

\* \* \* \*

WITH the abolition of entrance fees, wall-space charges, and other catch-penny tricks, much of the temptation to accept anything and everything would be removed, and with it the necessity of skying and flooring. Every reasonable person would prefer to have his exhibits "declined with thanks" rather than have them burlesqued. *Verb. sat. sap.*

\* \* \* \*

THERE seems no little uncertainty as to the whereabouts of the Crystal Palace just now. It is evidently a matter of opinion whether it is, or whether it is not, in the London postal district. It reminds one somewhat of the story of the man who on being asked if he had concealed a "big drum" about his person, replied that he "really didn't feel sure upon that point."

\* \* \* \*

IN the course of a year a goodly number of negatives on plates, alleged to be defective, come under our notice, concerning which the plate-maker usually replies, "Stale plates." Now, if the Photographic Dealers, etc., Association are really anxious to reduce friction between maker and consumer, they cannot find a more universally acceptable and welcome overture than that of dating (both *inside* and *outside*) the boxes containing their dry plates: "Stale plates" would then be a matter of fact rather than a matter of assertion. At present the user has absolutely no means of testing the "stale plate" statement until it is too late.



## Letters to the Editor.

### "LANDSCAPE PURE AND SIMPLE."

SIR,—In the very excellent letter of Mr. F. Davies, which appears in last week's issue, I am glad to see he makes mention of "landscape pure and simple." This is a subject for study which is but little understood by the majority of amateurs, who can see nothing beautiful in nature unless aided by the introduction of "figures," human or otherwise.

Now, "landscape pure and simple," and "landscape with figures," are two totally distinct and different subjects; and whilst almost any landscape can be made into a picture, more or less, by the careful introduction of figures by a practised hand, it needs special study and careful artistic training to be able to make a picture without them. In the latter case it is not a question whether the photograph could not have been "improved" by the introduction of "figures," but whether or not it is "a picture" without them.

In Mr. Davison's medal picture in the present Pall Mall Exhibition, where are the figures? And yet I do not think that any competent judge—certainly no artist—would deny that it is a picture. In saying this, I do not wish to pose as an admirer of pin-hole work, for I think Mr. Davison would have produced infinitely better results had he not resorted to it; but I refer to "An Old Farmstead" as a good example of composition, especially the distribution of light and shade, and of how "a picture" can be made without the "introduction of figures." The delicate leaf tracery of a hanging branch, properly placed, the contrast of light and shadow in masses of foliage, the broken lights and half-lights on a foreground of stones and wild weeds, the variety of graceful curves and combinations of beautiful tree forms—artistic treasures which nature so bountifully offers to those who love to seek them—may each and all give a subtlety and charm to "landscape pure and simple" which the introduction of figures would only destroy. The picture is there, and the poetry is there, although the eye of the "detective shooter" will certainly fail to find it.

Nor can it, perhaps, be expected that many should admire it; for a man should *live* in the country, roam over it, make it his delight, and love it and study it in all its moods and changes before he can know what is meant by "landscape pure and simple," or have the artistic side of his nature satisfied with "nothing but trees." Dwellers in towns, true to the gregarious instinct, like to share their sympathies with something human, and at once ask for "figures." To them the dell is nothing without the daisy-picker; the stream nothing without the angler on its bank; the meadow a wilderness, without the cows and sheep; and the old hill, with the sun playing softly over its rugged features, is nothing without the "figure" sitting at its foot.

We know, of course, that every photographer is a born art critic, and intuitively possesses the knowledge which can only come to artists by systematic study and long practice. I have, therefore, some hesitation in declaring that to be able to compose a picture of "landscape pure and simple," a knowledge, more or less sound, not only of drawing, but also of the principles which govern composition, is absolutely necessary.

Having myself worked for years, during the leisure intervals of a professional life, with pencil and brush, before I ever took a camera into my hand, I feel at times so disheartened to see the self-assurance and ignorance which passes as "criticism" in photographic coteries, that I am tempted in very despair and sorrow to abandon the "new love" which has such a fascination for its world-wide army of wooers. I enclose my card.—Yours, etc.,

A. H. B.

\* \* \* \*

### DEVELOPING COMPETITION.

SIR,—May I be allowed to express astonishment and regret at the letter of "F. M. G." in your last issue? It seems strange that after throwing down the gauntlet on behalf of ferrous oxalate, taken up by me and brought to a practical issue through your columns, "F. M. G." should curtly say, "I will have none of it."

Your readers will naturally think he shows the white feather by withdrawal. He admits all will be under the same disadvantage, yet it is not fair that he may have a plate that does not please him, that limited experience like his is necessary.

The remarks seem paradoxical and mere quibbles. Surely, after telling us he has taken a gross or two of creditable negatives in nine months, all developed by ferrous oxalate, and that it will hold its own against any other developer, he should have more faith in the *power* of his developer, which has been my contention all along, viz., power, not the *skill*. I am heartily pleased so many of your readers have signified their interest. The test may not be a perfect one, but it will put a certain amount of information in your hands not thoroughly known before, only surmised.

I suggested lantern plates simply on account of their usefulness to your loans. I strongly urge artificial exposure, same subject, same batch by a standard maker. (Will a maker be generous and offer them?) To expose by daylight would be very uncertain for a quantity of plates. No competitor to have *two sets*. Exposure should not be known. Every set to be an exact duplicate, and *all* information in the dark. These are my chief ideas, whether negatives or positives. Waiting your final conditions out of a multiplicity of thought, I remain, yours truly,

November 3rd, 1890.

A. C. TOWNSEND.

\* \* \* \*

### BROMIDE PAPER UNDER GREEN GLASS.

SIR,—I see a short letter from "Niger" in last week's issue relative to the above subject. I can quite bear him out as regards all he says. Since the idea of printing ordinary silver prints under green glass was mooted, I have been experimenting with bromide paper under the same conditions, and have got a lot of successful prints from very bad negatives (generally over-exposed ones), and, indeed, negatives I had quite despaired of ever being able to do anything with.—Yours, etc.,

November 2nd, 1890.

WENTWORTH A. J. CROKE.

\* \* \* \*

### THE ANGLE OF VIEW.

SIR,—I notice on page 11 of Wall's "Dictionary of Photography" a "Rule and Table for finding the Angle of View." As a table exactly similar appears in Anthony's "International Annual," credited to me, the question naturally arises as to priority. Allow me, therefore, to state that my table was first published in the *Photographic Times*, p. 52, of January 30th, 1885, and in the "International Annual" of 1888. Mr. Wall's "Dictionary" did not appear until 1889.

By giving space to this communication in your valuable paper you will confer a favour on—Yours respectfully,

(Rev.) CLARENCE E. WOODMAN, Ph.D.

New York, October 21st, 1890.

[NOTE.—We are sure Mr. Wall would have been pleased to acknowledge the source had he known anyone claimed priority of publication.—ED: AM: PHOT.]

\* \* \* \*

### MEDALS AT EDINBURGH (ELECTRICAL) EXHIBITION.

SIR,—With reference to the paragraph in your journal as to medals at the Edinburgh Exhibition, I shall be glad if you will allow me to explain that it refers to the medals awarded at the Electrical Exhibition, which closes this week.

The medals which will be awarded at the International Exhibition of Photography, to be held here from November 14th, 1890, till January 7th, 1891, will be given to the producers of the pictures, etc., and not merely certificates that such medals have been awarded.—Yours truly,

T. BARCLAY,

Oct. 28th, 1890.

Hon. Sec., International Exhibition of Photography, Edinburgh.

\* \* \* \*

### STALE PLATES.

SIR,—Could not plate-makers devise a means by which we amateurs could be sure of getting fresh dry plates? I think only one maker puts a date on his boxes, and I don't see any reason why this should not be done by makers generally. It would certainly prevent dealers accumulating a large stock of plates, as they would then only order what they knew they could dispose of in a certain time.

It is very annoying to buy package after package only to find when the plate is developed that there is a horrid iridescent stain, and that a good deal of the "go" in the negative is destroyed.—Yours faithfully,

November 1st, 1890.

NIGER.



## Instantaneous Photography

BY W. JEROME HARRISON, F.G.S.

### CHAPTER V.

#### INSTANTANEOUS PHOTOGRAPHY ON COLLODION DRY PLATES.

*Taupenot Produces the First Successful Collodion Dry Plates.*—For out-of-door work the inconveniences of the wet collodion process were great. A tent had to be carried, with a bath of nitrate of silver, because the plate had to be exposed soon after dipping in the bath, and then developed before it had time to dry.

To obviate all this, collodion dry plates were—after several failures by other workers—first successfully introduced by the French chemist, Dr. Taupenot, in 1855. These were produced by coating a wet collodion plate with albumen and sensitising again; the plate was then washed and dried, after which it would keep for weeks, or even months. But this “collodio-albumen” process was very slow; the average exposure required being six times that of wet collodion.

We possess, however, a print of an instantaneous photograph upon a “bromised collodion dry plate,” kindly presented to us by Mr. B. J. Sayce, of Liverpool, and taken by him from Woodside landing stage in September, 1863, of “H. M. ships *Defence* and *Royal Oak*, during the visit of the Channel Fleet to the Mersey.” The picture includes waves, clouds, smoke from steamers, etc. We should estimate the exposure at about one-fifth of a second.

*Hill-Norris Obtains Sensitive Dry Plates.*—The first “coated” dry-plates possessing a sensitiveness equal or superior to that of wet collodion were those produced by Dr. Hill-Norris, of Birmingham, and sold, commercially, in large quantities between 1856 and 1866. In his patent specification of September 1st, 1856, Dr. Norris names *gelatine* as one of the substances he used to coat his sensitised collodion, the *gelatine* acting as what was then called a “preservative,” the idea being that one of the principal uses of such a coating was to protect the collodion beneath from the injurious action of the air, etc.

In 1858 Dr. Norris was able to greatly increase the sensitiveness of his dry plates, and it is pretty certain (though his method has never been published) that this was due to the employment of a large proportion of a bromide in the collodion, whereby bromide of silver was formed. We now know that this substance is much more sensitive to light than silver iodide, but in the collodion days the iodide was regarded as the photographer's sheet-anchor.

*Instantaneous Photographs on Dry Plates Considered “Startling”* in 1862.—We reproduce an account of work on these plates from the *Photographic Journal* for April, 1862, as illustrating the surprise with which the idea that dry plates *could* produce instantaneous pictures was received twenty-eight years ago:—“We may here briefly notice a series of instantaneous stereoscopic views of marine and other subjects, taken by Mr. H. Sampson, of Southport, on Dr. Hill-Norris's dry plates. Much as has been said on this subject, there is something almost startling in the announcement of instantaneous dry-plate photography reduced to the systematic certainty which a series like this indicates. Many of the pictures are very beautiful and artistic, and many others are very nearly as good. A few of them are decidedly instantaneous, and not under-exposed. It is only fair to add—and we do it without intending much disparagement—that some which have had instantaneous or very rapid exposure are really a little under-exposed. The wonder is, however, not that this should be the case in some, but that any should possess such excellent photographic qualities as they really exhibit. We cannot forbear refer-

ring to a view of the new iron pier, Southport, extending far into the sea, crowded with figures, a very perfect and charming picture, with a very lovely sky. ‘The Old Church, Lower Buildings,’ etc., Liverpool, is also a very fine composition. They are all just so good as to convince us there is no reason . . . why dry-plate instantaneous photographs should not rival those produced by the wet process.”

*Brewster on Dry Plates* in 1862.—The writer\* of the article in the *Quarterly Review* for October, 1864, referring to the Norris plates, says:—“The desire of escaping from the trammels of the wet collodion process has naturally occurred at an early period to many inventive minds. Was it not possible to devise a dry sensitive surface which might be prepared at home, and, after exposure, developed at home? so that the photographer should have to carry with him nothing but his plates, his camera, and his lens, and might leave the susceptible collodion and the wayward nitrate bath in his dark-room at home. It was quickly ascertained that simply drying the wet plate would not answer. Even when every precaution had been taken to prevent the plate from becoming stained by keeping, it was found that, as a rule, dried collodion would not take pictures without the addition of some other substance which would either keep its pores open, or stimulate the sensibility of the silver salts it contains. All kinds of substances have been suggested. Albumen, gelatine, gum, dextrine, sugar, tannin, gallic acid, metagelatine, honey, malt, raspberry syrup, morphine, resin, arsenic, catechu, have all been tried with more or less success in the manufacture of dry-plates. But the defect which attaches to them all is, that they do not approach the wet process in rapidity, and that none of them can be depended upon with absolute certainty. Those which are least uncertain, and therefore least likely to cause disappointment, are also the slowest. If any dry plates deserve a modified exemption from this estimate of their qualities, it must be accorded to the dry plates manufactured by Dr. Hill Norris, of Birmingham; but these, unfortunately, are made by a secret process, and, as a natural consequence, are very costly.”

The prices of the Norris ordinary plates in 1863 were, quarter-plates, 5s. per dozen; half-plates, 10s.; and whole-plates, 18s. Plates for “portrait and rapid landscape” work were 5s. 9d., 11s. 6d., and 21s. respectively. A man thought twice before making his exposures in those days; even when quarter-plates only were worked, every time the cap was taken off “bang went sixpence!” The percentage of spoiled plates was probably fewer than in our “Oh! fire away, it's only a penny!” times.

The “introduction” of collodion emulsion—to which we shall shortly refer—appears to have caused the manufacture of the Hill-Norris plates to cease, somewhere about 1870.

*Other Collodion Dry Plates Sold Commercially.*—About 1870-73 Messrs. Rouch, of London, sold collodion dry plates treated with tannin, according to the method discovered by Major Russell in 1865. Mr. Pollitt, of Manchester, also sold “collodion-albumen” dry plates. Writing of all these plates in 1872,† Mr. W. J. Stillman remarks, “On one occasion I tried wet collodion, Rouch's, the Liverpool, and Pollitt's plates together. The wet plate took ten seconds; for Rouch's I found fifteen seconds about the right time; the Liverpool I gave 40, 60, 80, and 120 seconds, and got clear and workable negatives from each, the best being at 60 and 80; while the Pollitt plate required not less than two minutes.”

Messrs. Murray and Heath (London) sold “bromochloride” collodion dry plates in 1872, prepared by Colonel

\* It is well known that the author of this important article was Sir David Brewster.

† *British Journal of Photography* for 19th April, 1872, p. 185.



Stuart-Wortley, but these plates were not a success. We have now named all the makers of dry plates belonging to the collodion era of whose existence we have been able to find any evidence.

*Dr. Hill-Norris Attempts to Resuscitate Collodion Dry Plates in 1888.*—Quite recently—at the Birmingham Convention of 1888—Dr. Norris announced\* his discovery of another and improved dry collodion plate. He said: "About 1858 he discovered that it was possible to make what at that time was a very rapid dry-plate; that was to say, he succeeded in producing a plate which was as sensitive as the wet collodion process. The nature of that plate had not, for reasons over which he had no control, been divulged to that day, nor had it ever been discovered. About three years ago, however, the Birmingham Society solicited him to become its President, and he knew that would mean bringing him back to the old love. His attention had again been strongly directed to the subject of photography, and more especially to that branch which he originally studied. The result had been that he had succeeded in producing a plate as sensitive as the gelatine emulsion, and that plate was a dry collodion. The plate had very many facilities in use. It could be used equally well wet or dry, preserved or un-preserved, and in this respect it was like the old collodion process. When ready for exposure in the wet state, it had nothing upon it but pure water. In this respect it differed from the old collodion process, which was bathed in excess of nitrate of silver. When used as dry plates, they developed with greater ease than in the wet collodion process, and any degree of density was readily obtained. The deep shadows or unexposed parts were, as in the old collodion process, as clear as the glass itself. After development, and slightly washing, the plates could be brought out to the light to be fixed and washed. After washing for a few minutes only they might be dried. Left to themselves in an ordinary room they would dry spontaneously in half an hour, or they might be dried in two minutes before a fire, or over a gas-jet or spirit-lamp, without the slightest risk. They were in no way subject to blistering or frilling in the hottest weather. As the films could be wetted with the greatest ease, no air-bubbles ever attached themselves to the surface during development; and the deposit (of silver) being fine they bore enlargement extremely well."

We examined at the time a number of prints from negatives on these new collodion dry plates, and found them fairly good, though with rather hard and black shadows.

The new "Norris" plate was patented† by its inventor, and it turns out to be the old "bath process" reversed, the silver nitrate being placed—to begin with—in the film, which is then dipped into a bath containing various alkaline salts.

No attempt has been made to place plates prepared by this method upon the market.

(To be continued.)

**DRY PLATES.**—The sensitiveness of ordinary rapidity dry plates may be increased by giving them a fuming with ammonia immediately before exposure. Plates which have been accidentally exposed to actinic light, or any emulsion which works foggy, may be cured by soaking them for ten minutes in the following:—Potassium bichromate, 1 part; hydrochloric acid, 3 parts; distilled water, 100 parts. After treatment in this bath, the plates must be thoroughly well washed and dried. They are by this treatment rendered less sensitive to white light, and will therefore require a longer exposure.—*Wall's Dictionary of Photography.*

\* *British Journal of Photography* for 27th July, 1888, p. 464.

† Patent No. 7044, May 11th, 1888. See specification in *British Journal of Photography* for 5th April, 1889.

## Photographic References.

By MAJOR J. FORTUNÉ NOTT.

(Continued from page 256.)

### PLATES.

IN continuance of the subject to which we have previously referred, we now deem it advisable to draw attention to the way in which dry plates should be treated or handled both before and after exposure in the camera.

The fact must never be lost sight of that these dry plates are not only highly sensitive to light, but are also influenced by certain atmospheric conditions, and by substances such as the paper with which they may be brought into contact, or the wrappers in which they are bound. As the condition of the sensitive plate is a vital one to the photographer, for upon it depends in a large measure the character of the picture he will produce, it is necessary to take all the precautions possible to insure it being as near perfection as can reasonably be expected. The nature and requirements of these dry plates must, therefore, be studied. At the beginning, however, one element of doubt exists, for which we cannot suggest a remedy, *i.e.*, if the plates have been purchased in any haphazard manner. Photographers who have had any considerable experience in the matter are aware that plates are affected by circumstances or conditions which are not fully understood. For instance, a box of plates can be purchased from one dealer which may turn out to be in every way satisfactory, and on procuring another box from another dealer, of the same make, same date, and, in fact, according to the label, made from identically the same emulsion, the plates are found to be vastly inferior, the distinction evidently arising in some way from differences in the character of the places in which they have been stored. From this it follows that, although a certain emulsion may be all right at the factory, and have stood the tests which it was there given, nevertheless after the plates made with it have been distributed among the dealers, complaints in certain quarters become rife regarding them. Experience alone can serve the photographer in this matter, and it will in course of time teach him where and with whom to deal. Two things should be avoided—one the buying of plates in any happy-go-lucky manner from strange shops, and the other the purchasing of brands in which the dingy appearance of the wrappers denotes the fact that they have not been among the recent outputs of the factory.\* This is necessary, for, all other things being satisfactory, age does not improve plates, and dealers having goods that remain for any length of time unsold, being but human, will naturally do their best to get rid of them. How long plates will keep even when properly stored is doubtful, and in all probability varies with the character of the emulsion and its method of manufacture. Undoubtedly some plates will keep for years, while others will retain their pristine excellence for barely as many months. When deterioration from this cause has

\* The writer has on many occasions pointed out the advisability, in their own interests, for plate manufacturers to have the date of make of each emulsion, and other necessary particulars to guide the judgment of purchasers, conspicuously printed on the outside of their wrappers. This would prevent a large number of those complaints constantly being made against plates which do not apparently possess very lasting qualities, although otherwise, when fresh, they are excellent in every particular. We feel sure the plate makers would not suffer if this plan were carried out. It might, of course, curtail to some extent the quantity of each separate order from individual dealers, but, reducing the risks photographers run of buying stale plates, would redound to the credit of the manufacturers, and so compensate for any loss that might occur on the one hand by an increase in the frequency of the orders the greater demand would necessitate.



commenced, besides a general dulness of image on development being apparent all over the plate, the edges will be found to have lost a considerable degree of sensitiveness, and to manifest a tendency to fog. When once this fog has been seen it will ever after be easily detected, and its appearance can in consequence be accurately accounted for.

Under no circumstances should plates be kept in a damp atmosphere, or on shelves in close proximity to any gas burners that are in use. Neither should chemicals be stored in the same place as that in which the plates are placed for preservation. As before remarked, sensitive plates are acted upon by most subtle influences, and every precaution should be taken to protect them from injurious atmospheres of every description. In connection with this matter it is as well to bear in mind that negatives taken on plates that have been treated with care will be an ample recompense for any little trouble of this nature that is expended upon them. Perhaps it may be as well here to state that the remarks made upon this subject are equally applicable to films of every description, and should be emphasised in the case of all emulsions which are coated upon paper, especially as regards their preservation from damp, for paper, as everyone is aware, absorbs and retains moisture very readily.

Difficulties enough, over which he has but little control, beset the photographer with regard to his plates, for the way in which they will turn out must always remain, to some extent, a matter of chance—and he should be most careful not to increase the risks he runs by neglecting any precautions requisite for their safety. As a reminder of certain points upon which he should expend some care, we think it well to enumerate the following hints upon this subject, over and above those to which we have already referred.

*Hints Regarding Dry Plates.*—When once a box containing plates has been opened for any purpose, it should be carefully tied up in strong paper, and if the emulsion is of any extra sensitive character, as a further precaution it should be placed in a tin or metal box, or if this is not convenient, a piece of flannel may be folded round it. With either of these safeguards the plates run less risk of deterioration from what may be called atmospheric influences. Plates should not be kept for any length of time in the dark slides. The greatly increased risk of accidents happening to them from various sources when they are kept in this way must always produce an element of doubt regarding their character, when they are about to be used, which need not exist if another system of storing them is adopted. When plates are being placed in the dark slides for use they should be carefully dusted with a broad soft-haired brush; and this operation should be repeated when they are subsequently removed for development. A photographer who habitually neglects these precautions will nearly always be troubled with "pin-holes," which are sure signs of dust. Of course, that trouble exists more in certain localities than it does in others, but it is safe to say that the above rule should be made, and always adhered to even under the most favourable circumstances. Dust is the photographer's arch enemy, and he should be constantly on his guard against it. When the camera is to be used in Eastern countries or where dust is prevalent, no better advice can be followed than that given by Captain Abney, viz., to rub the inside of the dark slides and camera with glycerine, which acts as a dust catcher, and consequently reduces the amount that can by any possible chance reach the plates. Dry plates being stored for travelling, especially if their destination is a tropical one, should be wrapped up in tin-foil, and further protected by being packed in a metal or metal-lined case. And they should be so packed that the risks of breakage through a fall or jar of any sort may be minimised as far

as human ingenuity can devise. Few things in life are more exasperating than to find one's plates have been broken when the place is reached where they were intended for use. Any one who has once experienced a disaster of this sort will not consider an extra amount of insurance against such a contingency recurring as being in any way misplaced precautions. Under no circumstances should the face side of dry plates be touched with the hands. One of the first lessons a beginner should receive is how to correctly handle sensitive plates and negatives.

(To be continued.)

## Reviews.

*Pascoe's Illustrated Pocket-Books* (Hazell, Watson, and Viney, Ltd.).

Of this series of pocket-books five have been issued, viz., "The American Roads through England," "The Roads to Paris from London," "Brighton," "Eastbourne and Hastings," "London in Little." These books are to serve the double purpose of pocket-book and guide-book. They contain much useful matter, written in a bright and chatty strain. The illustrations are good, although for some reason quite unexplainable there are some of them repeated in each book. The reading matter in all the books is upon the same line, and a somewhat unnecessary prominence has been given to the many virtues of hotels, their charges, and *cuisine*, at the sacrifice of descriptions of what to see and how to see it. Still, the books are cheap, well printed, and will give pleasure to those who purchase. The printing and general get-up are all that can be desired, and reflect much credit upon artist and printer.

*The Art Annual*: "Birket Foster, his Life and Work," by Marcus B. Huish (J. S. Virtue and Co., Ltd.), 2s. 6d.

This book should be in the hand of all lovers of landscape work, for in it are examples of some of Birket Foster's masterpieces. From them may be learnt many a lesson in composition. The frontispiece, "The Little Shepherds," is from the original etching by Birket Foster, and is a splendid study. Another full-page illustration is "The Convalescent," which would teach a lesson to some of our cottage-door photographers; but perhaps the best is the engraving of the well-known picture, "Primrose Gatherers." There are many pictures reproduced, which will be found apt examples to aim at. We heartily commend this "Annual" to the attention of our readers.

*The Art Journal* for November has as a frontispiece "St. Pierre, Caen," an engraving from a drawing by Herbert Railton. The article, "A Ramble through Caen," by Mr. J. Bloundelle-Burton, is exceedingly interesting. "Glimpses of Hexham," by Mr. S. D. Graham, tells us of many spots that Mr. J. P. Gibson has made familiar to photographers by his excellent series of photographs. "Among the Birds," by H. Stacy Marks, R.A., is illustrated with many reproductions of the author's very charming pictures of bird life. The whole number is of exceptional worth, and is reproduced, as usual, in admirable taste.

*The Practical Photographer* (Percy Lund and Co.) for November keeps up in tone, and contains many excellent articles upon topics of the day. It is a thoroughly fresh and up-to-date journal, fearless, and not a hash-up of stale news. We are pleased to note the ability of the editor, and the enterprise of the proprietors, who announce a "Christmas Double Number," which will have a circulation of 11,000 copies, and contain "a magnificent series of supplement illustrations on plate paper," with first-class articles by well-known writers.



## Optics.

BY PERCY L. BONTOR.

*Second Prize—Competitive Paper.*

THE space at our command being so very limited, we have decided to treat this subject in the form of a species of catalogue of the various principles and phenomena of optics, and to pray our readers to pardon any terseness they may remark.

Optics is that branch of physical science which treats of the properties of light, more particularly with reference to the formation of images.

Of the *Propagation of Light* there are two theories: (1) the "corpuscular" or "emission," (2) the "undulatory." The latter is generally accepted; it holds that all bodies are filled with an extremely subtle elastic medium, called the *luminiferous ether*. The luminosity of a body is caused by an infinitely rapid vibration of its molecules, and this being communicated to the ether, produces spherical waves, which, being transmitted to the retina, calls forth the sensation of vision.

The *Velocity of Light* was estimated by Foucault (by a method forming a crucial test of the validity of the undulatory theory) to be 185,157 miles per second.

The *Intensity of Illumination* is the quantity of light received on a unit of surface. It is inversely proportional to the square of the distance between the surface and the source of light. When the light is received *obliquely* the intensity is proportional to the cosine of the angle between the luminous rays and the normal. (The normal is a straight line drawn at right angles to the surface at the point where the ray strikes it.)

*Reflection* is the continuation of a beam (or collection of rays) of light in a different direction after striking against a polished plane surface. The laws of reflection are: (1) "The reflected ray lies in the plane of incidence;" (2) "The angle of incidence is equal to the angle of reflection."

The angles of incidence and reflection are those included between the normal and the incident and reflected rays respectively. When a beam of light falls upon a polished surface (or "mirror") at right angles, it is reflected along its original path in an opposite direction.

Spherical mirrors are formed of portions of a sphere, and are termed "concave" or "convex," according as the reflecting surface is upon the inside or outside thereof. Spherical mirrors may here be considered as following all the laws pertaining to lenses, concave mirrors to *convex* lenses, and convex mirrors to *concave* lenses.

*Refraction.*—When a beam of light passes from a rarer to a denser medium (*e.g.*, from air to glass or water), or *vice versa*, it is seen (under suitable circumstances) to appear bent towards the denser at the surface of separation of the media. This principle is termed "Refraction."

The best method of conducting experiments in refraction, and also in the other branches, is to allow a beam of sunlight to enter through a small aperture into a dark-room.

A beam of light is not itself visible, but its course may easily be traced by the lighting-up of the solid particles, in the air, etc., which lie in its path; if a non-luminous flame (*e.g.*, a Bunsen burner or spirit lamp) be held under the path of the beam, the solid particles will be consumed just over it, and the course of the beam rendered invisible at that point.

The Laws of Refraction are: (1) "The plane of incidence is the same as the plane of refraction;" (2) "The sines of the angles of incidence and refraction are in a constant ratio."

Different bodies possess different degrees of refracting

power. These are compared by means of certain calculated values attached to the bodies, and termed "Indices of Refraction."

It is well known that daylight may be separated into its primary constituents (violet, indigo, blue, green, yellow, orange, red), by means of a prism. The reason is, broadly put, that the "index" for each of the colours in the order given is less than the one preceding it, and the index of the material of the prism being, of course, the same for all, each colour becomes refracted to a greater or less angle, and consequently they separate.

A lens may be regarded as a collection of an infinite number of prisms placed concentrically. Lenses are of two sorts, convex or convergent, and concave or divergent. The ordinary photographic objective is, in its total effect, a convex lens, whilst the direct "view-finder" now so commonly used may be experimented with to illustrate the properties of a concave lens (which, of course, it is).

Parallel Rays of Light (those coming from an infinite distance) falling upon a lens are refracted so that they all meet in one point. This point is called the "focus" of the lens. A burning-glass is an ordinary convex lens, and the bright "burning" spot is, in reality, an image of the sun, and forms the focus (or "hearth") of its heat and light.

Considering only the cases in which an object is beyond the focal length of a lens, we will note the peculiarities of the image formed:

(1) In a *convex* lens the image may be caught upon a screen, and is therefore called "real."

(2) In a *concave* lens the image cannot be caught upon a screen, but may be seen by placing the eye in the position the screen would occupy (as in the finder)—it is therefore called "virtual."

(3) Generally, the size of the image increases as the object approaches the lens, and *vice versa*. The "focus" (*sic*), or, more correctly, the *conjugate* focus, of an object is nearer to the lens as the object becomes more distant.

The formulæ for lenses and mirrors are:—

$$(1) \frac{1}{u} + \frac{1}{v} = \frac{1}{f} \quad (\text{for finding focus or conjugate focus}).$$

$$(2) \frac{I}{O} = \frac{v}{u} \quad (\text{for finding size of image}).$$

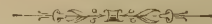
$u$  = distance of object from lens.

$v$  = " " image " "

$f$  = focal length of lens.

$I$  and  $O$  = size of image and object (lineally).

In conclusion, a body is *opaque* when it does not permit the passage of light; *translucent* when it permits the passage of light, but does not allow of bodies being distinguished through it; *transparent* or *diaphanous* when bodies may be distinctly seen through it.



STAND.—One of the most important parts of an amateur's outfit. There are numerous good stands in the market, and many bad ones, and whilst it may be invidious to name them, the following points may help the operator in his choice:—The stand should be of sufficient height to allow of the operator standing comfortably upright under the usual cloth, with his eye on a level with the top of the camera. Many commercial stands are much too low; the stand should be light in weight, rigid when set up, and capable of adjustment for uneven ground, and folding up into a small compass, and lastly, there should be no loose screws about it. It is always as well to obtain a stand for a larger sized camera than is used, as greater rigidity is obtained. When erecting the stand, which is also called the tripod, one of the legs should always be placed underneath the lens, as by this the front of the camera can easily be lowered or raised, and the operator can comfortably stand between the legs behind.—*Wall's Dictionary of Photography.*



## How Surefoot Won the "Two Thousand."

BY JAMES LYON.

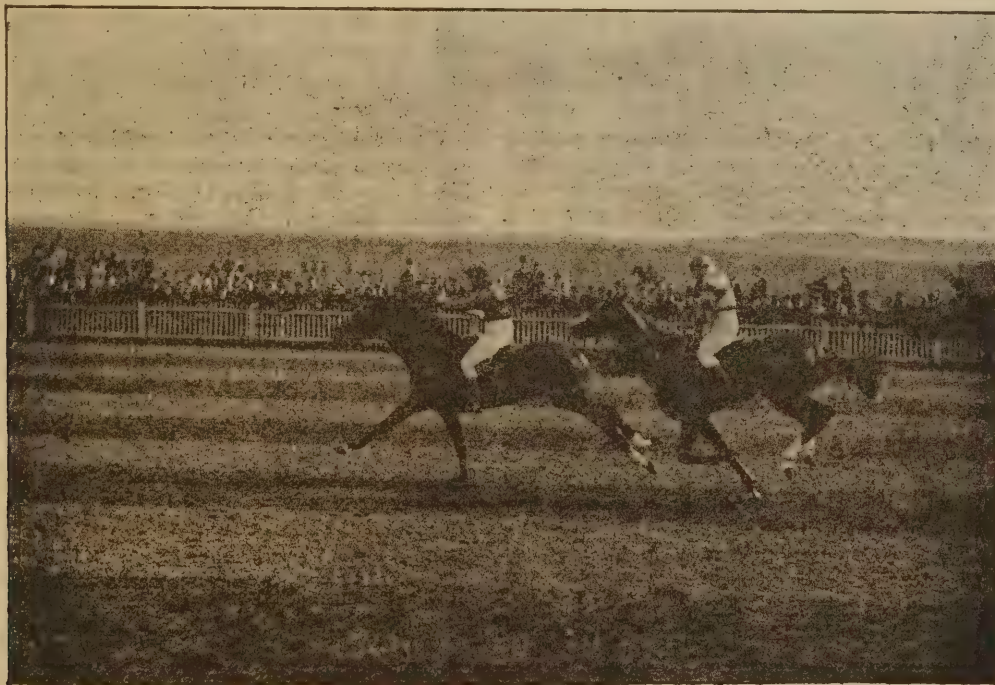
I HAD been for some time working at the perfecting of a new shutter, which was, of course, to eclipse all my previous attempts to annihilate photographic time, and so far its attentions had been confined to taking my little boy running in the garden. But now a grand opportunity occurred for testing its rapidity, such as should be beyond reproach. A friend kindly asked me to go with him and about a dozen men in a drag to see the Two Thousand run, and, with the shutter uppermost in my thoughts, I closed with the offer.

Filling all my backs with Paget fifty-times plates, I duly arrived on the course with the sun shining most gloriously, and not even a cloud in the sky. My first

result was that the horses came nearly in the centre, and therefore in the worst part of the focus. The distance was remarkably sharp, and the faces are almost recognisable although so small.

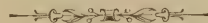
What an exciting moment it is when the multitude shouts with one voice, "They are coming!" and then as they near the winning-post, and just about to pass a point opposite to me which I have marked mentally, I have all I can do to keep cool amidst the shouts of "Surefoot wins!" and to guard against a shake of the camera by someone on the drag whose excitement has a totally different cause to mine. Then it is over, and of my six plates only the one with the great race on it is good for anything, the others being spoilt as pictures by the horses being either too distant or too near me. The plate was developed with eikonogen.

The shutter is like a venetian blind, the laths being made of sheet-steel, half an inch wide, and all being made to revolve simultaneously; but I will forbear entering



anxiety was that lunch might be disposed of in time to allow my preparations to be made before the racing began. The next difficulty was the direction of the sun, which shone almost directly into the lens. My prayers that I might be allowed to go to the opposite side of the course were poured into obdurate ears, so I had to make the most of a bad job and shield the lens with my hat. Of course, detail was hardly to be expected on the shadow side of a bay horse, but, at any rate, as I was to take the horses "broadside on," or, in mathematical language, so that their velocity was perpendicular to the axis of the lens, it would be a crucial test of the shutter's rapidity. Focussing was the next rock ahead. I was using a Ross cabinet lens working at  $f/4$ , with a clear aperture of  $3\frac{1}{2}$  inches (an eighty-ton gun, as my friends called it), and with such an aperture spherical aberration precludes much depth of focus, and as the course was about sixty yards wide and there was no knowing where the horses would come, I thought it best to use the swing-back so as to get distance and foreground good, and let the centre, of course, take its chance. The

into the many interesting points of the shutter, but may refer to it on some future occasion.



ARBROATH AMATEUR PHOTOGRAPHIC ASSOCIATION. — This Association has been successfully formed under the presidency of Mr. Moodie, who, we understand, is Mathematical Master of the High School. The Hon. Secretary is Mr. Brown (of the Bank of Scotland, Arbroath), who will gladly give information to intending members. The Association already has a muster-roll of twenty members.

UNDER-EXPOSURE is when the duration of exposure of the sensitive surface is not sufficiently prolonged to impress the details of the object on the sensitive surface. Its effects are thinness of negative, without detail. When under-exposure is suspected, the only thing to do is to reduce the bromide in the developer, and coax the image out with very slow and careful development. Hydroquinone may be used to develop all the detail out, and then density obtained by pyro. To increase density, intensification may be resorted to, but nothing can improve the lack of detail. — *Wall's Dictionary of Photography.*



## A Useful Method of Showing Unframed Prints.

THE Competition collections of mounted prints which we are continuously sending out to the various photographic societies suffer so much unnecessary injury in consequence of the rough handling which they often undergo, that we think the following contrivance will be found useful to those whose duty it is to display our collections, as well as other series of views which are on view for a very limited time, and which are therefore shown unframed. The contrivance in question is one which is specially valuable to those societies which are only able to afford the occasional use of a meeting-room, although where we were first struck with the merit of the arrangement was at the Croydon Camera Club, a society which is blessed with a club-room that is always at the members' service.

Like most good things, or useful ones, the idea is simplicity itself. At the height of three feet six inches, to four feet, there is fixed an ordinary ten-inch deal plank, which runs the full length of the wall; it is so arranged as to slope like a desk, the under side forming an angle of about 45 degrees with the wall. It is fastened at each end by nails, and the slope of the board is maintained by means of two long pieces of wood nailed to the outer edge of the board; these act as legs or props. In accompanying diagrammatic sectional sketch the construction will be better understood (see fig. 1). The prints are supported in their places by means of ordinary pins, which are readily stuck in exactly where they are required.

In figure 2 we give a sketch of prints arranged on the board, which will serve to illustrate the adaptability of the above-described system.

We may mention that the 60 views comprising "Monthly Competition" No. 16—"Instantaneous, Animals, etc."—were well displayed on two boards, one measuring 10 ft. by 7 in., and the other 10 ft. by 9½ in. Collections of prints thus exhibited do not suffer by having a succession of nail or pin holes driven through the mounts, and the views are so disposed that members can see them under the most

favourable circumstances, and are able with perfect ease to take down and minutely examine any particular one,

and also, if disposed, read such memoranda as are written on the backs.

We must strongly deprecate the slovenly custom that sometimes obtains at societies' meetings, of placing a large number of prints in a heap on the table, leaving it to members to take a dip into a kind of photographic "lucky-bag." Besides the tediousness, and the waste of time involved, the prints suffer much from this unnecessary handling, and moreover most of them get overlooked by individual members.

Although we have described a rough-and-ready yet per-

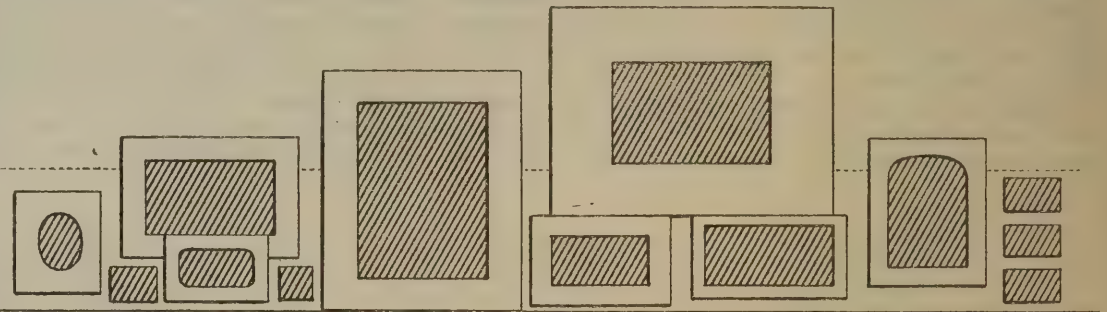


FIG. 2.

fectly efficient arrangement, which can be quickly put up, and can be stored anywhere without fear of injury, there is no reason why those societies having the sole use of a meeting-room should not fix up a permanent contrivance on the above lines, although it would have to be of soft wood, such as deal, in order to allow a pin to be easily fixed in it. More ornamental appearance could be given to it by means of oak stain or colour, and instead of being held in position with nails and legs, it could be made to work on hinges like a flap, and be supported by a folding bracket; it would thus hang flat to the wall when not in use, and be not only out of the way, but, if skilfully coloured, unobtrusive.

## THE LANTERN SOCIETY.

At the second meeting of this society, held on October 27th, Mr. Louis Fagan gave a lecture on "Wood Engraving." Speaking of its history, he said it was known in very early times in the East, and was probably first practised by the Chinese. The epoch of its introduction into Europe was unknown, but it was probably introduced by the Saracens. One of the earliest uses to which it was put was in the manufacture of playing cards, and there were shown on the screen slides of some remarkable cards which were cut by a French artist, and which were discovered in Peterborough Cathedral. Several slides were then shown of early specimens of wood engraving, amongst them being one of St. Christopher carrying the infant Jesus across an arm of the sea, by a German artist, dated 1483, and a most superb specimen of the celebrated Psalter of Faustus, which was printed from blocks on vellum, and of which only seven copies are known. The lecturer then proceeded to explain the method of "cross-hatching," showing a magnificent example from the frontispiece of a book published in Mentz in 1486. Slides of chiaroscuro drawings were next shown, and the method of printing from different blocks to obtain the finished result explained. Speaking of Albert Durer, Mr. Fagan observed that he transformed the art of wood engraving, and several very fine specimens of his work were shown on the screen. Two very remarkable slides were shown of the frontispiece of the "Great Bible," printed by order of Henry VIII. The first of these has on it two coats of arms, one of them being that of Cromwell; in the second the arms of Cromwell have been removed, leaving a white patch on the picture, he having been charged with treason during the interval between the publishing of the first and second blocks. Mr. Fagan concluded by showing examples of the work of Holbein, including some beautiful slides of the "Dance of Death," the finest work of art of its period.

FIG. 1.

W, wall; B, board; S, support;  
P, pins; V, view.



## The Pall Mall Exhibition Lantern Evenings.

BY ONE WHO DOESN'T KNOW.

I AM not artistic, I fear; I am not a photographer, I am sure; as to whether I am hypercritical, I leave you to judge. The other evening the Photographic Society of Great Britain tempted me, and I fell—to criticising! This was very wrong, because critics are only those, according to Lord Beaconsfield, who have failed in their profession; and, as I said, I have never been a photographer. The mysteries of the “black art” (*i.e.*, that strange dark-room, of which I have heard so much) have never been practised by me. I feel glad and sad—glad, after seeing some of the lantern views which were shown to the excited crowd that evening; sad, after noting the eager interest and heightened colour which adorned the visages of the amateurs who gazed on the walls. I did my best, before the lantern show began—my very best! But yet, what is an ignoramus to do when he hears on all sides such phrases as “halation,” which, I suppose, has to do with calling a cab? “He must look as if he knew what it meant,” you reply; and this, I fancy, is what most of those present with “their sisters, their cousins, and their aunts” were doing. All of a sudden the gas was turned down, and this made me think of a rowdy political meeting, especially as “Home Rule” was denoted as the possible cause of the overthrow of a pier shown on the screen. We had flowers first, with flowers of speech to delight us. We had one or two mistakes in this department, such as a daffodil getting into the wrong vase. It is said that we English take our pleasures sadly. Decidedly that was not the case with that crowd, shrouded in darkness and gazing at what appeared to me to be rather dusty slides. “That’s not so dusty,” said an amateur near me. I suppose he read my thoughts, but, seeing that thought-reading is now out of fashion, it was not wise for him to utter that *dictum*. After the flowers, I expected some fruit as a dessert. But, in this case, we did not get our deserts. No, we had some views of the Isle of Man, and they depressed me. The houses were so curious, and the “patter” accompanying the views was also strange to me. I felt in an unknown land, when I saw fishes with tails as large as mushrooms in the air. But I was glad to know that the focus for all these views had remained the same. I think it would be dangerous to move that focus. We saw a train coming out of Doncaster station, and some of us wanted to catch that train and fly “far from the madding” screen. The gentleman who told us all about the views—and I was so glad to hear what they meant—enjoyed himself immensely. He told us several times that he could not get people to move away. They were like his focus! But once he waited fifteen minutes for the inmate of a bathing-machine to descend. He was unrewarded, except by getting a photograph of a grinning man and boy—“they wouldn’t move.” I was sorry for this, because I am sure I should not like to have been taken by him. When he had completed what another speaker termed his “excellent delineations,” we had some interesting clouds thrown on the screen, followed by some Algerian pictures. These were applauded, but the figures seemed to me as though they were about to take a Turkish bath. I omitted to mention that we had previous to this some views of the docks, where ships with *part* of their sails and *part* of their stern, could be seen. Like Oliver Twist, I wanted more of these ships, but they sailed away. When I departed, I still felt sad and glad; but the reason for these feelings perhaps you can guess.

## Science Notes.

WE note in the *Illustrated London News* for November 1st a reproduction of a capital photograph entitled “A Corner in New-haven,” by Dr. T. W. Drinkwater. The six figures which the picture contains tell their story with wonderful *verve*.

The *Magazine of Art* for November contains an excellent article on “Warwick Castle,” with illustrations by J. Fulleylove. As every photographer has probably either visited this happy hunting-ground of the craft, or intends to do so, we know that many of our readers will be glad to hear of this very readable account of its wonders.

The *Graphic* for November 1st contains a reproduction of an instantaneous photograph by Mr. E. Thrupp, 10, Via de Robbia, Florence, of the destruction by dynamite of a very tall chimney near Florence. The chimney is shown in the air, in three distinct portions. But the “gem” of this number is the large double-page engraving entitled “Modern Goths,” in which two young lady photographers are shown at work taking a group of their friends in the Court of Lions, of the Alhambra, Granada. This picture contains probably the worst example on record of the drawing of a camera; in fact, we have no hesitation in saying that with the instrument as represented (the bellows are shown as forming a straight line with the lens) a photograph could not be taken. So if photographers are “Modern Goths,” the “artist” who drew this impossible camera is a “Modern Duffer”!

It appears that the aboriginal inhabitants of the islands in Torres Straits, Australia, each selects an animal (as a dog, or bird, etc.), which becomes sacred to them, and which they may not kill or eat; it is called their *augud*. Professor Haddon has been lecturing on these islanders at the Royal Institution, and he states that—“The women, or at all events some of them, used to have a representation of their *augud* cut on the small of their back. I made inquiries on this point on most of the islands in the Straits, but could only find four old women who had them; these I sketched, and two of them I also photographed.” The lecture was illustrated by these and other photographs of the natives shown by means of the lantern.

There is a valuable account of “French Police Photography” in *Nature* for October 30th, from the pen of Mr. E. R. Spearman. The information is chiefly derived from an important work by M. Alphonse Bertillon, entitled “La Photographie Judiciaire,” recently published in Paris by Gauthier-Villars.

“Detective” cameras M. Bertillon puts aside as rarely of much use for police purposes; it being at a critical moment more of an object to capture a malefactor than to photograph him. Still, he admits an occasional value for this kind of photography, and gives a startling example of the scene of a most dramatic murder in the suburbs of Paris, which was photographed at the instant of its discovery, before any of the surroundings had been disturbed. This, M. Bertillon contends, would naturally be most valuable in the hands of the prosecution. Numerous other uses of photography are mentioned, such as mine accidents, traces (footprints, etc.) in the snow before it melts, and other matters of future judicial investigation.

Mr. Callender has recently patented (under the name of “Lactite”) what is described as a “substitute for celluloid.” It consists of the casein of milk mixed with borax and acetate of lead, which is dried and hardened.

The old question of how to successfully photograph bright, polished objects—such as silver plate, etc.—has recently again cropped up in the columns of the *English Mechanic*. Four correspondents each offer a solution of the difficulty. The first recommends the steam from the spout of a kettle to be allowed to play on the bright cold silver. The steam condenses and dulls the surface, which is then photographed before the deposit of water-vapour has had time to evaporate. No. 2 simply writes: “Wipe the article over with a clean oiled rag.” No. 3 recommends “that it be stippled with whiting.” The last writer (Mr. Bottone) says, “Raise a dust of fine white wheat-flour by sweeping some about in the neighbourhood of the object.” This will settle upon and dull the polished surface. Then introduce the camera and take your photograph.

The plan by which we have ourselves been successful in such cases has been to introduce a good-sized lump of ice into the interior of the silver vase, etc. This chills the metal, and the cold metal then condenses dew upon its surface from the surrounding air, producing a matt surface which is easily photographed.

F. G. S.



## Notes from the Liverpool Centre.

(By our District Editor.)

Good accounts come from the exhibition in connection with the Bury Photographic and Arts Club, which was opened last Wednesday week, and concluded last Monday. The number of photographic exhibits were largely in excess of those of any previous year. In many cases the work was of much excellence. Mr. Joseph Burrows, junr., showed several frames, chiefly portraiture; a department in which this extremely young worker excels. Messrs. Booth (President), Roger Wood (Hon. Sec.), R. Grundy, junr., and other gentlemen also exhibited very creditable pictures. Mr. E. W. Mellor, a magnate of the Bury district, largely assisted at the show. Unfortunately, the Boston, U.S.A., slides did not arrive in time for exhibition. This set will now go from Belfast to Worcester.

At the second practical demonstration at the Liverpool rooms on Wednesday, 29th ult., Mr. George E. Thompson treated in excellent style on "Lantern Slides," confining his remarks primarily to Cowan's chloride plates. His formulae are:—

No. 1.					
Citric acid ..	..	..	..	..	120 grs.
Ammonia carbonate ..	..	..	..	..	88 "
Distilled water ..	..	..	..	..	1 oz.
No. 2.					
Sulphate of iron ..	..	..	..	..	140 grs.
Sulphuric acid ..	..	..	..	..	1 drop.
Distilled water ..	..	..	..	..	1 oz.

Add 3 pints of No. 1 to 1 pint of No. 2.

In all, twelve plates were developed, each giving entire satisfaction to the large number of workers present. A noteworthy item of the demonstration was the large use Mr. Thompson made of gaslight.

Next Wednesday, the 12th inst., Mr. W. P. Christian will deal with the "Toning of Lantern Slides," at the practical demonstration of the Liverpool Association. This is an alteration from the original intention. Mr. Isaac Knott should occupy the evening with the "Wet Collodion Process," Mr. Christian following later, on December 10th. A change of date has been found necessary, however.

The *Neuheiten*, the Photographic News published in Berlin, in a recent issue, devotes a whole page to setting forth the particulars of the Liverpool (1891) Exhibition, and in two or three paragraphs urges German photographers to compete. My information is to the effect that there will be a very large number of foreign exhibits. Apropos of German photographers, has it been noted that in connection with the recent Moltke celebrations, the photographer has played a large part? When visiting Count von Moltke, the German Emperor was accompanied by a photographer with a detective camera, who took negatives of various groups. While at dinner the old warrior received fourteen proofs of group pictures taken by the Emperor's photographer. One of these photographs, taken during the Imperial visit to the Field-Marshal, immortalises the moment when the Emperor presented Count Moltke with the marshal's staff. What possibilities this opens up. Our members here are looking out for advertisements for "Photographers in Ordinary and Extraordinary to the Court of Victoria I., of England."

## Exhibitions.

### EXHIBITION AT BURY (LANCS.)

On Wednesday, 29th October, the seventh exhibition of photographs, paintings, etc., in connection with the Bury Photographic and Arts Club was opened in the Bury Athenæum. Taken collectively, the exhibits are highly creditable, and reflect well upon the energy and enterprise of the Bury Society, which at the present time is composed of about seventy workers in photography—all amateurs. Hitherto the shows promoted by the Bury Society have not been a financial success; there has usually been a small deficit to make up. But undeterred by this the members have persisted in their annual effort—having only missed holding one show—and done their best to command suc-

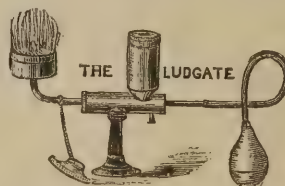
cess. This speaks well for a provincial society in such a town as Bury, with its 60,000 or 70,000 inhabitants. But something that speaks better for the Society is the fact that last Saturday night upwards of 500 persons attended the lantern lecture, "Rambles in Normandy with the Camera," in connection with the exhibition. Mr. W. E. Mellor was the lecturer. The lecture was of a high order of merit, and hugely enjoyed. Mr. Mellor illustrated his able discourse with illuminated photographs taken by himself, on a screen twenty feet square. He was warmly applauded throughout.

Other illustrated lectures, musical items, and attractions have been provided. The display of photographs was the largest and best the Bury Society have, so far, got together. The show closed on Monday night.

## Apparatus.

### A NEW FLASH-LIGHT LAMP.

MESSRS. PRICE, TALBOT, AND Co., LD., 26, Ludgate Hill, E.C., have sent us for inspection a new flash-light lamp, which is illustrated below. The upright chamber is a receptacle for holding magnesium powder, and the action of drawing the horizontal chamber towards the lamp allows the powder to fall into a tube, by the pressure of the india-rubber ball the powder is blown through the centre of the lamp, and a very intense flash is procured; this flash can be continued at will.



Messrs. Price, Talbot & Co. have a very extensive stock, including all kinds of photographic apparatus, and their premises are well worth a visit. At this season of the year all matters connected with the making of lantern-slides are of special interest. The firm make up a very useful developer for slides and transparencies. They have also a good selection of slides to let on hire, including a "Stanley" set. A useful and well-made article of theirs is a folding dark-room lamp, all hinged together, fitted for medium or glass; to us it appears one of the most handy in the market, and is offered at 4s. 6d. and 5s. 6d. The Lumiere plates, a well-known French brand, are stocked in addition to all English makes. They are also about introducing a "dry collodion plate" for lantern work. The firm turns out most excellent work in the optical department, and are also electrical engineers. We have said sufficient to satisfy our readers, who might pay a visit to 26, Ludgate Hill with advantage.

### METAL FRAMES AND LANTERN-SLIDES.

For a long time we have seen the necessity for a metal binding for lantern-slides. Mr. James Moore, of 18, Vauxhall Street, Birmingham, has kindly sent us specimens of his combination frames, which are at once a mask and binder. The frames are stamped out of sheet metal, the slide (preferably with the paper binding) is laid on the frame, and the edges turned over with the finger and thumb; a pressing-tool is then run round the edges, and makes a neat finish to the slide, and renders the chances of breakage very unlikely. We are so pleased with these combination frames that we shall certainly bind the AMATEUR PHOTOGRAPHER 1890 Prize Slides with them, and should advise all workers in lantern-slides, especially those who show their slides and loan them, to place their orders with Mr. Moore. We understand that these "frames" are supplied at 12s. a gross, and we would venture to prophesy that no accessory in photography will have a more extensive sale.

A NEW COMBINED CLAMPING SCREW AND PLUMB BOB LEVEL FOR PHOTOGRAPHIC CAMERA STANDS.—Messrs. Talbot and Eamer write us:—"We shall be glad if you will give publicity to the fact that we have made arrangements with Mr. Cameron to manufacture and supply the apparatus; the price of each is 3s. 6d., including a bush to fit to camera, for use in case the thread or the screw does not fit the socket in the camera."



## A "Dictionary of Photography."

A GREAT many fancifully contrived and fearfully and wonderfully made flies, in the shape of books, have been reeled out to catch the amateur since he began to look for entertainment in photographic waters. The "Dictionary of Photography," by Mr. E. J. Wall, just published, cannot be classed with the sort of bait we have described. A more generally useful book for both practical and amateur photographers has not been issued for a long time. While one may, with propriety, gourmand its contents with perfect safety and much profit at one sitting, yet it is rather a book for emergencies—a condensed cyclopædia or ready reference book, so to speak, to which one may run for help when, in the midst of work, emergencies occur, or when a fact or a figure is wanted which memory fails to bring to the surface as quickly as the occasion requires.—*Wilson's Photographic Magazine*.

But the work before us contains much more than the A B C to the subject, beyond which limit books compiled for the erudition of non-specialist readers, as a rule, are disinclined to travel. On the contrary, it affords a complete photographic picture of the art itself, whilst the simplicity and clearness with which the author expounds the scientific secrets of the camera render his work perfectly intelligible to the most mechanical intellect. Most text-books on photography presume too much on the student's previous acquaintance with the subject which Faraday made his own. Elementary chemistry, however, has been wisely placed in the front by the present author. The focussing and developing processes bear an intimate relation to each other in actual practice, and the connection has not been lost sight of in Mr. Wall's Dictionary. Indeed, in every branch of the art, from the full-sized apparatus at the top, down to the detective camera or Kodak at the bottom, the "Dictionary of Photography" will be found an invaluable *vade mecum*.—*Star*.

See also over forty newspapers reports, which speak of the "Dictionary" as the most useful and handy work on photography yet published. Following is a list of articles contained in the work:—

Aberration  
Accelerator  
Achromatic  
Acids  
Actinic  
Actinograph, Actinometer  
Aerial Perspective  
Agent  
Alabastine Process  
Albertype.  
Album  
Albumen  
Albumenised Paper  
Alcohol  
Alkali  
Alkaline Development  
Alum  
Amber  
Ammonia  
Ammonium Bichromate  
Ammonium Bromide  
Ammonium Carbonate  
Ammonium Chloride  
Ammonium Iodide  
Ammonium Oxalate  
Ammonium Sulphocyanate  
Angle, Wide-  
Angular Aperture  
Aperture of a Lens, Working  
Aplanatic  
Apparatus  
Aristotype  
Artificial Light  
Artotype.  
Astigmatism, or Astigmatism  
Astro Photography, or Astronomical Photography  
Autotype Process.  
Background  
Backing Plates  
Balance  
Bath  
Beach's Developer  
Beechey's Emulsion Process  
Bellows  
Biconvex  
Binoocular Camera  
Binoocular Vision  
Black Varnish.  
Blacking  
Blanchard's Brush  
Blisters  
Blue Printing Process.  
Blue Tones in Prints  
Blurring  
Books on Photography  
Brilliance  
Broken Negatives  
Bromide Paper  
Bromides  
Bronzing  
Buckle Brush  
Burnishing  
Cabinet  
Calcium, Chloride of  
Caloric Rays of the Spectrum  
Calotype, or Talbotype  
Cameo  
Camera  
Camera Lucida  
Camera Obscura  
Camera Stand.  
Canvas, Printing on  
Cap  
Carbon or Autotype Process  
Carte de Visite  
Ceramic Photographs  
Changing Box  
Chiaroscuro  
Chloride of Lime  
Chrome Alum  
Circle of Least Confusion  
Clearing Bath  
Cliché  
Cloud Negatives  
Collodion  
Collo type, Lichtdruck or Heliotype  
Colour, Effect of, in Photography  
Colour of the Film  
Colour, Photography in  
Natural  
Colouring Photographs  
Combination Printing  
Composition  
Concave  
Concave, Concavo-Concave, Concavo-Convex Lens  
Condenser  
Conjugate Foci  
Contact, Optical  
Contrast  
Convex  
Copying  
Curvature of the Field  
Cutting Prints  
Cyanotype  
Daguerreotype  
Daguerreotype, to Clean and Copy  
Dallastint  
Dammur  
Dark-Room  
Dark Tent  
Decomposition of Light  
Definition  
Deflection  
Density  
Depth of Focus  
Detail  
Detective or Hand Cameras  
Developer  
Development  
Dextrine  
Dialectic  
Dialyser  
Diameter  
Diaphragms  
Diffraction or Inflection  
Diffused Light  
Dish  
Dispersion  
Dissolving Views  
Distance  
Distilled Water  
Distortion  
Divergence  
Dodging Negatives  
Doublet Lens  
Drachm  
Drop Shutter  
Drying Box  
Dry Plates  
Dusting-in Process  
Eau de Javelle  
Ebonite  
Edging  
Elemi  
Eliminator, Hypo-  
Emulsion  
Enamelling Prints  
Enamels  
Encaustic Paste  
Enlarging  
Equivalent Focus  
Ether  
Exposure  
Fabric, Golden  
Fading  
Fahrenheit  
Falling Front  
Ferrotypes  
Field of a Lens  
Film  
Film Photography  
Fixed-Focus Lens  
Fixing  
Flare  
Flatness [fluoric Acid  
Fluorhydric, or Hydro-  
Fluorine  
Focus  
Focussing, Aids to  
Focussing Cloth  
Focussing Glass, or Compound Focuser  
Focussing Screen  
Fog  
Frilling  
Fuming  
Gallon  
Gamboe or Camboge  
Gaslight  
Gelatine [sion Paper  
Gelatin-Chloride Emul-  
Glass  
Glycerine  
Gold  
Gold, Chloride of  
Gold Hyposulphite  
Grain

Gramme  
Green Fog  
Ground-Glass  
Group  
Gum Arabic  
Gum Dammar  
Gum Dragon  
Gum Guaiacum  
Gun-Cotton  
Halation  
Half-Plate  
Head-Rest  
Hectogramme  
Hectolitre  
Hectometre  
Heliochromy  
Heliotype Process  
High Lights  
History of Photography  
Hydrogen  
Hydrogen Peroxide  
Hydroquinone  
Hydroxylamine Hydrochloride  
Hypo  
Image  
Image, Latent  
Incidence, Angle of  
Indian Ink  
Ink Process  
Insensitiveness  
Instantaneous Lens  
Instantaneous Photography  
Instantaneous Shutters  
Intensification  
Iridescent Stain  
Iron, Ammonio-Citrate of  
Iron, Ammonio-Sulphate of  
Iron, Oxalate of  
Iron, Perchloride of  
Iron, Sesquioxide of  
Iron, Sulphate of  
Isinglass  
Isochromatic or Orthochromatic Photography  
Ivory  
Ivory Black  
Japan Varnish  
Kaolin  
Lac  
Lamp  
Lampblack  
Landscape Lens  
Lantern, Optical  
Lantern Slides  
Latent Image  
Latitude of Exposure  
Lead, Acetate of  
Lead, Toning with  
Least Circle of Aberration  
Lens  
Levelling Slab  
Lichtdruck  
Light  
Light Fog  
Lime, Chloride of  
Lime Water  
Line Drawings, To Copy  
Liquid Glue  
Lithium  
Lithium Bromide  
Lithium Chloride  
Lithium Iodide  
Litmus  
Liver of Sulphur  
Loss of Tone in Fixing  
Lunar Caustic  
Luxograph  
Macro-Photography.  
Magic-Lantern  
Magic Pictures  
Maglip, or Meglip  
Magnesium  
Magnesium Sulphate  
Manganese Binoxide  
Manipulation  
Masking Skies  
Masks and Disks  
Mastic, or Mastic  
Mealiness of Prints  
Measles  
Measures  
Meniscus  
Mercury  
Mercury, Perchloride of  
Mercury, Subchloride of  
Metallic Spots  
Methylated Spirit  
Metric System  
Micro-Photography  
Minim  
Mirror, Reversing  
Mirror Silvering  
Monocular Vision  
Mountant  
Mouning  
Muriate of Ammonia  
Muriatic Acid  
Naturalistic Photography  
Negative  
Negative Storing  
Non-Actinic Rays  
Obernetter's Process, or Lichtkupperdruck  
Objective  
Oil  
Oil Paintings, to Copy  
Opacity  
Opalotype  
Optical Centre  
Optical Lantern  
Optics  
Orange Light  
Orthographic and Orthoscopic  
Osmose  
Over-Exposure  
Oxalate Developer  
Ox-Gall  
Oxygen  
Oxy-Hydrogen, and Oxy-Calcium, or Drummond's Light  
Packing Plates  
Palladium  
Panel  
Paper, Albumenised  
Paper, Plain, or Matt-Surfaced  
Paper, Sensitised  
Papyrotype, or Papyrography  
Parabola  
Paste  
Paste, Encaustic  
Pearlash  
Pellet's Process  
Pellicle  
Pencil of Light  
Perspective  
Phosphorus  
Photo-Engraving  
Photography  
Photo-Lithography  
Photometer  
Photo-Micrography  
Phototype  
Pinhole Photography  
Pinholes  
Pizzighelli's New Printing-Out Process  
Platinotype  
Platino-Uranotype, Mercurio-Uranotype, Palladiotype  
Platinum  
Platinum, Perchloride of  
Platinum Toning  
Pneumatic Holder  
Poisons  
Porcelain Pictures  
Portrait Lens  
Portraiture  
Positive  
Potassium Bichromate  
Potassium Bromide  
Potassium Carbonate  
Potassium Cyanide  
Potassium Ferridcyanide  
Potassium Ferrocyanide  
Potassium Iodide  
Potassium Metabisulphite  
Potassium Nitrate  
Potassium Nitrite  
Potassium Oxalate  
Potassium Permanganate  
Potassium Sulphide  
Powder Process  
Principal Axis  
Printing  
Pyroxiline  
Rapidities of Lenses  
Rapid Rectilinear  
Reaumur  
Redevelopment  
Red Fog  
Reduction (in Size)  
Reduction of Density  
Reflected Light  
Reflection of Light  
Refraction of Light  
Rembrandt Portrait  
Removal of Film  
Residues  
Restrainer  
Retouching  
Reversal  
Reversed Negatives  
Rising Front  
Rive's Paper  
Roller Slide  
Rolling Prints  
Ruby Light  
Sal Annioniac  
Salted Paper  
Saltpetre  
Sandarac  
Satin, Printing on  
Screen, Coloured  
Sel d'Or  
Sensitised Paper  
Sensitometer  
Shutters, Instantaneous  
Side Swing or Shifting Front  
Silk, Printing on  
Silver  
Silver Albuminate  
Silver, Ammonio, Nitrate of  
Silver Bromide  
Silver Chloride  
Silver Iodide  
Silver Nitrate  
Silver Oxide  
Silver Sulphide  
Sky Shade  
Slide, Dark  
Slide, Lantern  
Soda, Bicarbonate of  
Sodium Acetate  
Sodium Carbonate  
Sodium Chloride  
Sodium Citrate  
Sodium Hyposulphite  
Sodium Nitrate  
Sodium Phosphate  
Sodium Sulphite  
Sodium Tungstate  
Solar Camera  
Specific Gravity  
Spectroscope  
Spectrum  
Squeegee  
Stains  
Stand  
Stannotype  
Starch  
Stereoscope  
Stop  
Stripping Film  
Sublimate, Corrosive  
Sugar of Lead  
Sulpho-Pyrogallol  
Sulphur  
Sulphur Toning  
Swing-Back  
Symmetrical Lens  
Talbotype  
Test Papers  
Thermometer  
Thinness of Negative  
Titles on Prints  
Toning  
Tragacanth  
Transfers  
Translucent  
Transparencies  
Transparent  
Under-Exposure  
Uranium  
Uranium Printing  
U.S., or Uniform System  
Varnish  
View-Finder  
View-Meter  
Vignetting [Prints  
Washing Negatives and  
Waxes  
Waxing Negatives  
Wide-Angle Lens  
Weights and Measures  
Wet-Collodion Process  
Woodburytype  
Yellow Fog  
Yellowness of Prints  
Yellow Stain  
Zinc  
Zincography  
Usual Sizes of French and Italian Dry Plates  
Sizes of Glass, Mounts, Paper, etc.  
Sizes of Mounts  
Sizes of Albumen Paper  
Freezing Mixtures  
Table of the Elements  
Table of the Formule of Chemicals used in Photography  
Table of Solubilities  
List of Dry Plates and Sensitometer Numbers  
Cadett's Table, showing the Relative Rapidities of Plates of Varying Sensitometer Numbers  
Sundry Formulae.

The Second Edition, Revised and Enlarged, of the "Dictionary" is now ready. It makes a handsomely bound volume of 300 pp., is illustrated with 70 diagrams, and is published at the low price of 2s. 6d., London: Hazell Watson, and Viney, Ltd., 1, Creed Lane, E.C.



## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

ON Thursday, October 30th, an exhibition of lantern slides was held at the Camera Club, members and friends bringing up over 200 slides for the occasion.

A very varied exhibition was the result, several classes of work being illustrated.

Mr. Williams contributed landscape scenes, Mr. White and Mr. Lardeur microscopic subjects, Mr. Griffiths some very effective subjects taken in East Anglia, Mr. Howlett pictures, including an excellent view of the Houses of Parliament, and Mr. Chang hand-camera views. Other slides were contributed by Messrs. Laurie, Greene, Sands, and Wellington.

The subject on Thursday, November 13th, will be a "Demonstration of the Primuline Process," by Messrs. Green, Cross, and Bevan. Meeting at 8.30 p.m.

## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BELFAST Y.M.C.A. CAMERA CLUB.**—This club, at the invitation of the general Secretary of the Association (Mr. D. A. Black), held its usual monthly meeting at his residence. There were nine sets of lantern slides sent forward for competition, all of which were rather better than the October sets. Messrs. R. Welch and John Donaldson kindly acted as judges. Mr. C. D. Beggs secured first place with a beautiful set of Co. Antrim waterfalls, Mr. William Strain second with a section of Drums Bridge, an excellent interior of the drawing-room and hall at Purdysburn, and a country smithy. Mr. Best gained third place, a carefully chosen piece showing woodmen at work felling trees in Tollymore Park, a good view of the old bridge at the same place, and a group at the sands in Portobello. Afterwards about thirty slides were handed in from those present, to be thrown on the screen. Mr. A. R. Dresser very kindly forwarded about 100 slides for exhibition; as these were shown, frequent applause was drawn by the excellent animal and fowl pictures. When the lantern exhibition had concluded, Mr. Robert Welch gave a demonstration of platinotype printing, the method of development, etc., to the great interest of all present. Mr. James McCleery handed round mounted specimens of his work. The members then retired to the large dining-room, where covers were laid for about forty. Mr. Black was accorded hearty thanks for the pleasant evening and entertainment he had so liberally provided.

**BLACKBURN AND DISTRICT PHOT. SOC.**—On the 28th ult. the first annual meeting was held. The reports of the Secretary and Treasurer were read and accepted. The election of officers for the ensuing year took place. President, Major Baron; Vice-Presidents, Mr. R. Pilling, L.D.S.R.C.S.E., and Mr. P. Jackson; Treasurer, Mr. Garland; Financial Secretary, Mr. Tattersall. Mr. W. B. Burrows was pressed to accept re-election as General Secretary, but consented only to re-election until Christmas. Messrs. Waddington, Gowans, and Mitchell, with the officers, are the Council. Several members promised photographs, framed, to hang in the room. It was decided to take a vote, by reply post-cards, to see which night of the week will suit most members for a weekly meeting. Messrs. Mawson and Swan's pamphlets on lantern plates and bromide paper were distributed. At the next meeting Mr. Gregson, ex-President, will give a demonstration on "Alpha Paper Printing."

**BRIGHTON PHOT. SOC.**—The fortnightly meeting was held on the 28th ult., Mr. W. Jago, F.C.S., in the chair. The attraction of the evening was a demonstration of "Enlarging on Bromide Paper," by Mr. H. M. Smith, of the Eastman Company. The demonstrator having given an explanation of the process, the room was darkened, and, using an Eastman lantern, an exposure was made on a sheet of their rapid bromide paper, using the

lens at open aperture ( $f/4$ ), of 2 min. 20 sec. Development followed, and a fine picture resulted.

**DUKINFIELD PHOT. SOC.**—The monthly meeting was held on the 29th inst. About 200 slides were shown, including (local) Morecambe, Barrow, Furness Abbey, Grange, Liverpool, etc., by Mr. Shirley; Brighton, Isle of Man, Fleetwood, etc., Mr. Lees; North Wales, etc., Mr. Glazebrook; Llandudno, etc., Mr. Hadfield; Liverpool, etc., Mr. Scott; Forth Bridge, etc., Mr. Broadbent; Staley Brushes, Mr. Leech; Grimsby, Mr. Winterbottom. The work of the members generally showed great improvement, and the slides were much admired by a large audience of members and friends.

**HARLESDEN AND WILLESDEN PHOT. SOC.**—A meeting was held on the 28th ult., when a demonstration of the Autotype process was given by Mr. W. Goshawk. The specimens were well adapted to illustrate the variety of ways in which the process can be used, and a very enjoyable evening was spent.

**HOLBORN CAMERA CLUB.**—On the 31st ult. Mr. Scholzig sent prints on paper of his sensitising, printed under green glass. It was suggested that for purposes of comparison four prints from each negative should be sent, viz., one each matt and albumenised printed with and without green glass; also stating the toning formula in each case, and time in toning. Sample packets of Fry's plates, papers, etc., were distributed amongst the members for trial, and to report upon the same.

**LEICESTER AND LEICESTERSHIRE PHOT. SOC.**—We have been asked to remind our readers that this Society will hold a conversazione on Wednesday evening, November 26th, and will be pleased to welcome all interested in photography residing in Leicester and district. The Hon. Secretary, Mr. H. Pickering, High Cross Street, Leicester, will gladly give further particulars.

**LIVERPOOL AM. PHOT. ASSOC.**—The tenth ordinary meeting was held on the 30th ult. Mr. Paul Lange presided. Messrs. Robert Thomson, Alex. Sinclair, A. Quayle, and Rev. W. Smith were elected members, making in all forty-six new members this year. The President announced the names of the gentlemen who have kindly promised to act as adjudicators at the annual meeting in November. A new hand-camera, styled "Adelphi," was exhibited by Mr. Miller, of Salford. Col. Ellison exhibited a novel bamboo tripod; Mr. W. Tomkinson an Aptus lantern copying camera; Mr. J. A. Sinclair, some results the investigation committee had made of direct printing with Thula paper; and Rev. T. B. Banner, some stereoscopic slides and prints, the work of thirty years ago. Mr. John Howson, of the Britannia Works Company, Ilford, then read a paper on the working of "Alpha Paper," in which he treated on the following points: Objections to developing papers disproved; choice of colours, and choice of surfaces of papers; necessity for care in exposure; permanency; latitude, modifications to produce best results from certain negatives; hints on toning; and concluded with a demonstration in which a number of beautiful pictures were made from negatives, of "Fishing Boats on Tyne," "Yachts off Ryde," Robinson and Thompson's portrait of "Signor Celli," "Magdalen Chapel" (Durham Cathedral); and to show the latitude of the paper, three prints of "Red Riding Hood," in which  $\frac{1}{2}$  of a minute, 1 minute, and  $1\frac{1}{4}$  minutes were given to each exposure, with almost similar results obtained. The proceedings closed with the exhibition of the new Boston (U.S.A.) Camera Club's set of slides, entitled "A Ramble in and about Columbus" (Ohio), the lecture being given by Mr. J. A. Sinclair. A set of slides taken on Alpha plates were thrown on the screen, and Mr. Paul Lange's "Channel Fleet" studies ended the show.

**MORLEY AND DISTRICT AM. PHOT. SOC.**—The ordinary meeting was held on the 29th ult., the President (Mr. S. Atkinson) in the chair. The subject for the evening was an exhibition of slides by Mr. Spafford, but was postponed till November 5th. The competition prints were passed round, and the judges' decision was read, the best set being done by Mr. W. Richardson, to whom a diploma of merit was awarded. Mr. C. H. Bothamley adjudicated.

**SHEFFIELD CAMERA CLUB.**—A lecture on Norway was given on the 29th ult. by W. Lamond Howie, Esq., F.C.S., of London. The subject was entitled "Ten Days on the Hardanger." The lecture was illustrated with a series of views, photographed by Mr. Howie, which embraced street scenes, many examples of the grand scenery, glaciers, valleys, mountains, waterfalls, as well as characteristic native costumes, and also interiors of dwellings, and customs of the inhabitants of the land of the midnight sun. A number of slides illustrating the journey to the Voringfos



reproduced vividly the difficulties of travel in these rugged valleys, and culminated in a magnificent view of the rainbows, which form on the spray of the great fall. The lecture was attentively listened to by a crowded audience.

**TOYNBEE CAMERA CLUB.**—At the meeting held on the 28th ult., Mr. G. West gave a demonstration on "Pyro Development," stating his opinion that pyro stains were obviated by the use of fresh developer for each plate, and by mixing developer with dry pyrogallol in preference to stock solution; stock solutions of bromide and ammonia being, of course, used. The Fry Manufacturing Co. sent samples of their various specialities.

**WEST KENT AM. PHOT. SOC.**—The ordinary meeting was held at Bexley on the 29th inst., the Vice-President (Mr. Dresser) in the chair. Messrs. J. Taylor and A. Carter were duly elected members. Mr. A. R. Dresser then read a paper, and gave a practical demonstration in lantern-slide making (dry plate process), from which many useful hints were taken. His reducing apparatus, embodying all the requirements of a skilful worker, was much admired. The next meeting will be held at Station Hotel, Sidcup, November 12th, "Bromide Printing and Enlarging," with demonstration.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 4, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

**4304. Borax Bath.**—Can any of your readers tell me a good formula for a borax toning bath? I want something that will give good deep tones.—**W. V. BALL.**

**4305. French Custom-houses.**—Is there any difficulty at the Calais, Boulogne, or Paris custom-house, or on the Italian frontier, with photographic apparatus or chemicals, or with dry plates? If so, where in Paris could I obtain chemicals and dry plates of English make?—**R. S. T.**

**4306. Irish Scenes.**—Will someone lend me a few negatives of Irish evictions scenes for making slides? I will pay carriage, and return safe within seven days.—**SHINING** (address with Editor).

**4307. Enlarging and Reducing.**—Is there an apparatus for doing this well by daylight? Shall be glad of a word or two from practical experience, with particulars of apparatus, cost, etc.—**LANCASHIRE.**

**4308. Mounting Solution.**—Will somebody kindly tell me how to mix Glenfield starch for mounting photographs? I have tried all ways, and cannot get it to stick.—**E. M. A. W.**

**4309. Bellows-Making.**—Can any reader give me instructions how to makegusset leather bellows for half-plate camera, 18 in. extension, or refer me to some publication on the subject?—**P. B.** (address with Editor).

**4310. Perfection.**—I should like to know which of the hand-cameras at present invented fulfils the largest proportion of the following conditions: (1) Rising front for either horizontal or vertical pictures, or, rather, for both. (2) Swing-back for pointing camera upwards. (3) External means for focusing accurately. (4) Shutter to give both "time" and "graduated instantaneous exposures." (5) Iris diaphragms. (6) Roller film-holder. (7) Identical

finder, an advantage, though not a necessity. This is my idea of a perfect hand-camera, though I am afraid it is practically almost impossible to combine all these advantages with lightness and compactness.—**J. W. W.**

**4311. Lantern Slides by Reduction.**—Is there not a way of reducing half-plate negatives to lantern slides by artificial light without the expense of an 8 in. condenser? Like many more of your readers, I am up to my eyes in business, therefore cannot use daylight, and yet wish to make lantern slides of the results of our last summer's holiday. I have tried all manner of dodges, but up to the present have failed to get my half-plate negatives evenly and sufficiently illuminated for anything under one hour's exposure, with Fry's plates.—**WILLIAM S. PUTLAND.**

**4312. Athletic Exercises.**—(1) Where can I obtain negatives of instantaneous photographs of athletic contests (at or near the winning post) for conversion into slides for the oxy-hydrogen lantern? (2) Or lantern slides already prepared?—**H. H.**

**4313. Loan of Negatives.**—Would any brother amateur loan me negatives of places on or near the Medway? All expenses paid, and great care taken.—**W. T. BROWNE** (address with Editor).

**4314. Comic Views.**—Can any reader give me an address where I can obtain, for an Australian friend, some stereo views, nearly all comic, with a few statuary and good views, but no buildings? I find it difficult to get good comic without vulgarity.—**KANGAROO.**

**4315. Brown Tones.**—I use the ordinary borax toning bath. How can I obtain the purple, or professional's tone, as I can only get brown tones?—**A. NOVICE.**

**4316. Alpha Paper.**—I have been using some Ilford Alpha paper, and, as far as printing and toning is concerned, it is perfectly satisfactory, but in squeezing the prints on to glass to gloss them I find they stick. Can anyone tell me how to avoid it?—**H. S. W.**

**4317. Moonlight Photography.**—Is it possible to photograph in bright moonlight? If so, what rapidity of plates, and what exposure would be necessary? The cloud effects at night are exceptionally beautiful. How could these be got? They would, of course, require instantaneous treatment.—**MOONSTONE.**

## QUERIES UNANSWERED.

Oct. 3rd.—Nos. 4217, 4218.

17th.—Nos. 4239, 4260, 4261, 4260, 4261.

24th.—Nos. 4268, 4270, 4275.

31st.—No. 4297.

## ANSWERS.

**4229. Address Wanted.**—Messrs. Talbot and Eamer, 7, Exchange Street, Blackburn, can supply you with lenses, such as used in the so called De non camera.—**OXIDE.**

**4241. Splashed Negatives.**—If a bath of dilute hydrochloric acid (say 1:40) will not remove the stains, the case may be given up as hopeless.—**THE SMITH.**

**4253. Transferotypes.**—There is, I believe, only one transferotype paper on the market, that of the Eastman Co., who hold the patent. The development is preferably by ferrous-oxalate. Full instructions are issued with each packet.—**THE SMITH.**

**4254. Prints in Optical Contact with glass.** are best done with Nelson's gelatine, but beware of infringing a patent. Bromide or gelatino-chloride prints require no preparation beyond a good soaking. Try them.—**THE SMITH.**

**PHOTOGRAPHIC CABINET MAKERS' SOCIETY.**—Quite recently the members held their first anniversary dinner. This society, which has only been established twelve months, has so far prospered that out of 150 men employed in the industry 130 are enrolled as members. A fund for the support of men out of work averages £1 per member, and a fund which was raised by special levy for any emergency that might arise in the trade places the society in a position equal with many of the older societies. Thirty years ago there were only 50 in the trade; now there are in London alone 150, and in England the number engaged reaches 600. The hours of labour thirty years ago were seventy per week, and a first-class workman only earned 33s. per week. A great advance had been made in the prosperity of the workmen, but he saw no reason why they should not continue to advance still further. A speaker deprecated the fact of an employer gaining all the honour and profit of an exhibition, and the men who made the articles not even being mentioned. He said, on account of machine competition, the men had to do 25 per cent. more work for the same money, which simply meant that the employer pocketed 25 per cent. more money, and they wanted to get some of that 25 per cent. back again.

**4283. Italy, etc.**—In reply to this query, a Government permit is absolutely necessary for any one wishing to photograph any antiquities at Rome, Naples, or Pompeii. Venice and Pisa are probably under the same rule, but I have no personal knowledge in their case. The British Consul would be the person to apply to for such a permit. A hand-camera would, of course, come under the same rule as any other camera, unless used surreptitiously; then, in case of discovery, the consequences might be unpleasant.—**FILM.**

**4271. Vignetting Portraits.**—Mix a little lamp-black with varnish, but it will be difficult to avoid a harsh outline, even if you print under ground-glass. It is much more satisfactory to cut out a mask to pin outside the frame and print in diffused light.—**THE SMITH.**

**4272. Dark Spots on Alpha Paper.**—Probably you have got hold of a bad sample of paper.—**PHENIX.**

**4278. Decoudun's Photometer and Enlarging.**—I made some experiments in this direction, but do not for certain remember the figures. However, I think they were, for Eastman's paper, 4 to 6 times the exposures marked on the photometer. This will depend to a certain amount on the colour of the negative, and on the light used. The above figures were for daylight exposures. I have remarked that with artificial (paraffin) light a pyro-developed negative requires from one and a-half to twice the exposure one of the so-called "wet-plate colour" does. The focussing ought to be done on ground-glass, and the reading taken from the part intended to print white in the enlargement. In some cases it might be advisable to take a mean between the extreme darks and the high lights. Experiments are easily made in this direction, and are necessary in order to suit each person's eye-sight and modes of development.—**J. G. P. VERE-KER.**

**4278. Decoudun's Photometer and Enlarging.**—From what the writer remembers, the photometer was placed on ground-glass (which was used in the first instance to focus the object on) behind, so that the image showed through, and then using in the ordinary way, and when the exposure was arrived at, multiplying it by 10.—**CAMERA CUSS.**

**4279. Bromide Paper, Developer for.**—See back numbers of this paper. Very many formulae have been given. See also same column in which this query appeared.—**PHENIX.**

**4279. Bromide Paper, Developer for.**—I have, after a considerable experience of other developers, returned to ferrous oxalate for bromide paper. Following the directions given in the Eastman instructions, I do not fail to get pure whites.—**A. R. F. E.**

**4279. Bromide Paper, Developer for.**—The best developer I have yet seen or tried for bromide paper is the following:—

	(1)	
Oxalate potass. ...	...	5 oz.
Amm. bromide ...	...	7 gr.
Warm distilled water ...	...	20 oz.

	(2)	
Sulphate iron ...	...	7 oz.
Citric acid ...	...	1/2 "
Warm distilled water ...	...	20 "

For use, add 1 oz. No. 2 to 5 oz. No. 1. I have tried hydroquinone, elkonogen, and several other developers; but the above beats them. I can get beautiful soft prints with this developer, and am always sure of getting pure whites, and no stain at all. Directly after developing, and before washing, swirl the print with an acid solution (sulphuric acid, 1/2 oz.; water, 1 pt.) two or three times. You will never then be troubled with yellow stains.—**A. H. A.**

**4279. Bromide Paper, Developer for.**—Thomas's



is about the best hydroquinone developer for bromide prints. Here it is:

No. 1.	
Hydroquinone ... ..	160 gr.
Sulphite soda ... ..	2 oz.
Citric acid... ..	60 gr.
Bromide potassium ... ..	40 "
Distilled or boiling water, to...	20 oz.

No. 2.	
Sodium hydrate ... ..	160 gr.
Boiled or distilled water, to ...	20 oz.

Take equal parts of each to form the normal developer. The following is the developer Eastman advise. I should advise your trying it.

No. 1.	
Oxalate of potash ... ..	16 oz.
Hot water ... ..	48 "

A few drops of sulphuric or citric acid.  
(Test with litmus paper.)

No. 2.	
Proto-sulphate of iron... ..	16 oz.
Hot water ... ..	32 "
Sulphuric acid ... ..	1/2 drm.

No. 3.	
Bromide potassium ... ..	1 oz.
Water ... ..	32 "

O' this solution take No. 1, 6 oz.; No. 2, 1 oz.; No. 3, 1 dm.; and mix in the order given. When your image is sufficiently developed, pour off the developer, and flood the print with the

Clearing Solution.

Acetic acid ... ..	1 dm.
Water ... ..	32 oz.

To ensure success, clean dishes and clean hands are essential. Citric acid may be used instead of acetic in the clearing solution, in which case use 1/2 oz. to the quart of water. To avoid yellow prints and get clean whites, as you ask about the developer must be acid fresh hyp must be used for each batch of prints, the wa-hing must be thorough after fixing, and don't fail to use the clearing solution. — W. A. J. CROKE.

4280. **Lantern.**—See Perken and Rayment's catalogue. They sell a good one at 30s., also one at 42s., and others. — HENIX.

4280. **Lantern.**—You cannot do better than invest in one of the higher-priced Optimus series. If possible, use the limelight. — A. R. F. E.

4280. **Lantern.**—I can with much confidence recommend W. J. Chadwick's new single lantern (limelight). His address is 10, St. Mary's Street, Manchester. Although rather expensive, it is a thoroughly good instrument, and can be used either at home or in public. If "Aboriginal" will write me (address with Editor), should be pleased to give further particulars. — ARLINE.

4281. **Prints Discolouring.**—You must probably use your fixing bath too strong. You should never use it stronger than 2 oz. to the pint, and don't over-tone your prints, as the hypo always turns them a very little. — W. A. J. CROKE.

4281. **Prints Discolouring.**—Hold them up to a weak white light, and if they are purple on looking through, they are done, but if not, keep them in toning bath until they are purple. — PHENIX.

4281. **Prints Discolouring.**—As has been frequently remarked, the tone of an albuminate of silver print depends more upon the kind of negative than upon the toning bath. If your negatives are thin you cannot hope to get a final purple, unless you prolong the printing by means of coloured media interposed between the light and negative. I use borax bath and salt solution, and with dense, long printing negatives obtain a purple tone. Some tone is always lost in fixing, hence over-tone. Make the fixing solution alkaline with ammonia, and wash quickly, but thoroughly, afterwards. — A. R. F. E.

4282. **Prints Curling.**—When dry, place print face down on pad of blotting paper, and take a flat-edge ruler, then draw print from under edge of ruler several times in different directions. The dye of pink blotting paper will come off occasionally on the prints. — A. R. F. E.

4282. **Prints Curling.**—Prints always curl directly they get dry after toning. You should smooth them out by putting them underneath a ruler on a piece of white blotting paper, then put under a heavy weight or in a cloth press, when I think you will never have them curl again. — W. A. J. CROKE.

4282. **Prints Curling.**—Before quite dry (if albumenized), roll them round a cardboard or wooden cylinder, face outwards, allowing the last edge of each print to overlap the next. Tie them up, and let them remain for a day. — THE SMITH.

4283. **Britannia Paper.**—I have not used Marion's sensitised paper, but have no doubt it will be good, as all their things are. Have you tried the Universal sensitised paper? If not, try a sheet, and you will be surprised at the splendid results. — A. H. A.

4283. **Britannia Paper.**—Vide answer to 4281. Yes, purple tones can be obtained with the right kind of negative. — A. R. F. E.

4283. **Britannia Paper.**—This paper is a good paper; in fact, anything Marions have their name to you can rely on. — CAMERA CUSS.

4284. **Hand-Cameras.**—The best, to my thinking, is McKellen's, as made by Marion; in it you see the

picture full size just before firing, and have, therefore, the best chance of aiming and focussing. It can, too, be used for time exposures. — E.

4284. **Hand-Cameras.**—The Talmer hand-camera is one that may be relied on; the price, too, is reasonable. — OXIDE.

4284. **Hand-Cameras.**—You can get any size in some makes. It is difficult to recommend any particular make, as nearly each has some advantage over the others. Send another query, stating what work specially for. — A. R. F. E.

4284. **Hand-Cameras.**—In reply to the latter part of "Camera's" query, Messrs. Shew and Co., of 89, Newman Street, Oxford Street, London, have a whole-plate hand-camera in the Photographic Exhibition. This, I believe, the largest size yet made. — J. G. P. VERREKER.

4285. **Lenses.**—Write direct to Mr. Wray, and tell him what you want. I have always found him most obliging, and I am sure he will treat you well. His lenses are unsurpassed. — A. H. A.

4285. **Lenses.**—You cannot do better than go to the first-named for what you want, and, if possible, invest in a 9 by 7, with their new Iris diaphragm. — A. R. F. E.

4285. **Lenses.**—These are all really good makers, and it is difficult to say which is best. The writer uses a Wray, and will not part with it on any account. — CAMERA CUSS.

4286. **Silver Printing.**—Vide 4281. Spicer's or Scholzig's are good papers. — A. R. F. E.

4283. **Silver Printing.**—"Heinrich" must get good printing negatives to get good rich tones. I have been using for a long time paper with "Tear's" in the corner of each sheet, with which I can get splendid tones; it prints quickly, but requires a little over-printing. It is a sure paper. I pay the maker 12s. 6d. per quire, post free. — BORAX BATH.

4286. **Silver Printing.**—If Heinrich will try Liesegang's Aristotype paper, to be had from most dealers, I feel sure he will obtain all the results he requires, viz., quick printing and toning, fine purple tones, and, with careful manipulation, very little loss of colour in the after-processes. — D. J.

4287. **Christmas Day Slides.**—Do not think this is published? but if it is, either Tylar, 48, Waterloo Road, S.E., or Marshall, 78, Queen Victoria Street, E.C., would supply you at 1s. each. — CAMERA CUSS.

4288. **Village Blacksmith.**—Apply to Mr. A. Underhill, 21A, Clarendon Road, Croydon. He will also, no doubt, be able to supply "Christmas Day in the Workhouse." — H. M.

4288. **Village Blacksmith.**—I purchased an excellent set (seven slides) from J. T. Chapman, Albert Square, Manchester, last season, which I used in public with much success. They were plain, and cost 7s. The slides are as follows:—(1) "Introductory." (2) "The Village Smithy." (3) "Under the Spreading Chestnut Tree." (4) "The Smith." (5) "The Smith at Work." (6) "Children Looking in at the Open Door." (7) "The Village Church." (8) "The Village Choir." — ARLINE.

4288. **Village Blacksmith.**—If "Earnest" writes to Priestly, High Street, Ramsgate, he will get an excellent set to accompany the same. — SHINING.

4289. **Developer.**—The sulphite acts as a preservative, and, to a certain extent, as a restrainer. On exposure to air the sulphite is oxidised and converted into a sulphate, a powerful restrainer. — A. R. F. E.

4289. **Developer.**—The sulphite acts as a preservative for the quinol. On exposure to the air it becomes oxidised, so to speak. The moisture it formerly had has been given off, and the strength thereby is different. — CAMERA CUSS.

4290. **Half-plate Camera.**—Do you mean Lancaster's? If so, one with reversing back costs four guineas. — CAMERA CUSS.

4291. **Lens.**—The best way to test whether it really does cover is to take the open aperture, focus on some object, and then look all round your focusing glass to see if there is any cutting off. If not, it covers; if it does not, I would recommend you not to touch the lens, but to take it back to the manufacturers. Covering and definition powers are two different things. — CAMERA CUSS.

4291. **Lens.**—If your lens is by a good firm, and does not do what it is advertised for, the firm, for their own reputation, will, I have no doubt, change it. I should not advise any attempts at alteration; it would only spoil its optical properties. Are you sure your camera is not at fault? — A. R. F. E.

4292. **Mounting Aristotype Prints.**—I mount my Aristotype prints in this way. I throw them all into a bath of water, and let them get well saturated, then take them out one by one, and place them face downwards on a clean glass plate, one above the other, till there may be about six or seven; then place over them two folds of clean white blotting paper, and carefully press out the moisture. Have ready some well-boiled plain starch mountant, and apply it thinly and evenly to the prints one after the other, as you mount each. This plan never fails to mount the prints without a wrinkle, and if the starch is well-boiled, they adhere perfectly. — C. H. D. L.

4292. **Mounting Aristotype Prints.**—The best mountant in the market for this purpose is Hinton's aristo paste, price 1s. per bottle. — D. J.

4292. **Mounting Aristotype Prints.**—If Winter will procure a bottle of Hinton's aristo paste, and will follow the directions on the label, he will have no more difficulty in mounting his photographs. — WEBSTER.

4292. **Mounting Aristotype Prints.**—The best way that I have found to mount these is, after squeezing them on glass, to let them get quite half dry, then have a piece of good cartridge paper cut same size, then brush on mountant thoroughly well on both print and paper; press well together, and leave until quite dry, and they will peel off with a good gloss, and can then be mounted on to anything you like without the damp coming through. Any good mountant will do. I have used well made and strained glue, likewise Houghton's mountant. — JOHN.

4293. **Light.**—"The Amateur Photographer's Ready Reckoner," being exposure tables by Vile, will fully supply what "J. W. W." requires. It is published by T. Manson, 37, Highgate, Kendal, and costs 1s. 9d. I have used it for a long time, and have always found it correct. — D. J.

4293. **Light.**—The comparative exposures necessary for every hour from 4 in the morning until 8 in the evening, with the variations for each month in the year, is shown in a table compiled by Dr. J. A. Scott, which is printed in "Photography for Amateurs" (Cassell and Co.). — H. M.

4293. **Light.**—A table such as "J. W. W." wants has been published in the photographic Almanacs, and is also in some of the shilling notebooks for exposures. I think both Burton's and the "Systematic Exposure Book" contain it. The table was calculated by Dr. Scott. — J. G. P. VERREKER.

4293. **Light.**—Dr. Scott's table, to be found in any of the Photographic Almanacs or Annuals. — A. R. F. E.

4294. **Bromide Paper.**—Of course, Eastman's paper will develop with hydroquinone, and with the most satisfactory results. Iron is as good as anything (see answer No 4279 in this issue, which will give you full particulars). You should not get either blisters or stains if you work carefully and carry out full directions. — W. A. J. CROKE.

4294. **Bromide Paper.**—Nothing equals ferrous oxalate for bromide paper; this I say after experience. Hydroquinone both blisters and stains. — A. R. F. E.

4294. **Bromide Paper.**—The makers give ferrous oxalate, but I find Thomas's formula, plus one third water, gives equally good results. The paper will not stain unless development be unduly prolonged; and if the operations of fixing and washing be thoroughly performed, the image is permanent to all intents and purposes. — THE SMITH.

4294. **Bromide Paper.**—Eastman paper can be, of course, developed with hydroquinone, the result being as permanent as if iron be used. I have not noticed any tendency to stains or blisters. — H. M.

4295. **Alpha Paper.**—If you use Ilford hydroquinone, diluted with three parts water, and tone in the bath recommended by the makers, you will have no cause to complain. I find it is much better to use the toning and fixing bath in one, the formula for which will be found with every packet of paper. With this any variety of tone may be obtained at will. — S. O. B. (Genoa).

4295. **Alpha Paper.**—Had you followed out the correct formula the result would have been different. By regulation in toning bath, various tones can be had. — CAMERA CUSS.

4295. **Mounting with Stickphast.**—If your make smells of oil of cloves, it is harmless. There are several makes, and those preserved with carbolic acid or similar preservatives are injurious. — A. R. F. E.

4296. **Mounting with Stickphast.**—I do not think Stickphast is likely to do your already mounted prints a great deal of harm. But there is a great deal of alum put in Stickphast to keep it good, which is distinctly a bad thing for photographs, as it stains them yellow in time. You cannot find a better mountant than starch, freshly made. I should advise your sticking fast to this. — W. A. J. CROKE.

4296. **Stickphast Paste.**—There is somewhat of a danger using this, on account of impure matter, and you will do better to stick to starch or get Aristo paste. See 4292. — CAMERA CUSS.

4296. **Reducing Camera.**—From experience I can advise Pearson and Denham's, advertised in these columns; it is a perfect and a reliable article. — A. R. F. E.

4296. **Reducing Camera.**—I should recommend Pearson and Denham's, at 35s., the same that I use myself; it is a first-rate article. — CHAS. GROVES.

4298. **Reducing Camera.**—I use Griffiths' half-plate lantern slide-making camera, price 12s. 6d., Marion and Co. I find it answers very well. Of course it only takes a square piece of each plate. Very simple, and easy to work. Will be pleased to give particulars of exposure, etc., if you care to write. — C. J. E. (address with Editor).

4299. **Hydroquinone Formula.**—The hydroquinone formula given by the makers on the box is the best. — A. R. F. E.

4299. **Hydroquinone Formula.**—If you will turn



to answer No. 4279 in this issue, you will find a hydroquinone which is equally good for lantern plates as it is bromide paper.—W. A. J. CROKE.

4299. **Hydroquinone Formula.**—This is Fry's formula for their lantern plates:—

Hydroquinone	150 gr.
Sulphite soda	440 "
Brom. pot.	25 "
Water, to make a total bulk of	20 oz.

A.

Carb. soda (not bicarb.)	900 gr.
Carb. potass.	960 "
Water, to make a total bulk of	20 oz.

B.

For use, take equal quantities of each.—SIR ROGER.

4300. **Lens.**—Lancaster generally puts a very good single lens in his cameras, and if this is one of them you could use it successfully on any ordinary land or sea scape.—CAMERA CUSS.

4301. **Background.**—Neutral tint is generally the colour used, a mixture of blue, crimson lake, and a little white to taste (metaphorically).—CAMERA CUSS.

4301. **Background.**—A slate colour is the best and most useful for an ordinary studio background.—W. A. J. CROKE.

4302. **Bellows.**—The information could not well be condensed into an answer. See the "Year Book of Photography" for 1889, pages 172 *et seq.*, where you will find full particulars. If you cannot get it, shall be pleased to lend you a copy. The Editor has my address.—THE SMITH.

4302. **Bellows.**—Procure some black silesia, double it, double seam at intervals of  $2\frac{1}{2}$  in. to 3 in. Run in the seams pieces of medium-sized wire, bend to shape required, then make a final seam connecting all the ends of the wires, so as to make a square or conical bellows, as required.—ENTERPRISE.

4302. **Bellows.**—This requires diagrams. Get "The Year Book of Photography" for 1889 from the publishers of AMATEUR PHOTOGRAPHER. You will find full directions therein.—A. R. F. E.

4303. **Toning Aristotype Prints.**—Here is a good formula for toning and fixing in one bath:—

Distilled water	1 pt.
Hyposulphite soda	4½ oz.
Citric acid	1 dr.
Acetic acid (pure)	1½ "
Sulphocyanide of ammonium	3½ "
Alum (powdered)	1 "
Sol. chlor. gold (gr. to dr.)	1 oz.

Half sheet of unfixed scraps of Aristotype paper. When first this solution is made it turns into a milk-like liquid, which will settle in about three days, after which time it is ready for use, and can be used over and over again. The prints must not be washed, but put in bath as they leave the printing frame. At first they will turn a brown colour, and after five minutes the fixing will be finished, and the toning commenced; the whole operation should be finished in from six to eight minutes. The temperature of the bath should be about 60 degs. Fahrenheit. I don't know if you have tried the above bath; if not, do so. If you do not like it, try the following, with which, by slow toning, a vigorous tone will be obtained, ranging from the richest chestnut-brown to a velvety black:—

Water	3 oz.
Chloride of gold	2 gr.

A.

Water	3 oz.
Sulphocyanide of ammonium	3½ gr.
Hyposulphite of soda	1 "

B.

Mix these by pouring one part of A into an equal part of B; in no case the reverse. This can be diluted, if necessary, with water. Not more than two prints should be toned at a time. The prints are to be put direct from the toning bath into the fixing bath. Strength:—

Hyposulphite of soda	3 oz.
Water	10 "

These prints must be washed in the most thorough manner for about two hours, and then dried; but on no account between blotting papers.—W. A. J. CROKE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**PROMOTEUR.**—No. 2 will be found to be the best. No. 3 may be published any day, and that will teach you more than any of the others.

**W. OTLEY.**—It is certainly best to use distilled water.

**FRITHIOF.**—Your print is from a much over-exposed negative.

**REGINALD BENNETT.**—You will see we have lost no time in noticing the matter to which you called our attention.

**JOHN S. GRADWELL.**—The paper is stale, and you could not expect a good print under such circumstances. Get some fresh paper and "try again."

**HENRY HINGE.**—You might submit articles upon the subjects you name. We shall be pleased to consider them, and, if suitable, to publish.

**SIR ROGER.**—The book you refer to is issued by the Fry Manufacturing Co., 6, Chandos Street, Strand, W.C.

**F. A. BELLAMY.**—Why did you not send before?

**THOMAS WIDDOP.**—Thank you for particulars, duly to hand.

**POSTULATA.**—The West London Photographic Society will be the best for you to join; Secretary, Mr. John A. Hodges, 87, Chancery Lane, E.C. The meetings are held at the Addison Hall. The D cameras are admirably made, and in every way reliable and serviceable.

**W. WARD WHITARD.**—Will write you a line upon the photographs.

**R. HARTFORD.**—We should not class you as a professional photographer, if you work as described in your letter. You evidently do not "practise photography as a means of livelihood."

**ENTERPRISE.**—When you have proved the usefulness of your "suggestion," send us further particulars.

**W. H. B.**—The apparatus may have some good points, but we do not know them, and should advise you to go to one of the established manufacturers of photographic apparatus, and buy a first-class apparatus.

**H. H.**—We have drawn attention to your request, and will look up what we can and do all we can to help you.

**F. ST. JOHN GIBBIE.**—No. 1 will, we think, answer your purpose admirably; it is well made.

**LEO.**—Buy "Photography for All" (Is.) or "Experimental Photography" (Is.) from our publishers. Either book will give you the information you require.

**W. H. H.**—Very much obliged to you. Such help is always serviceable.

**AN IDLE ONE.**—Certainly you may state the work is your own.

**W. J. BROWNE.**—Will see what we can do.

**W. H. H.**—Next week.

**ANXIOUS.**—A very good camera. Write the makers about speed of shutter.

**W. P. B.**—At the price the cameras are wonderful; but we should hardly advise you for your purpose going in for such cheap goods. You expect the lens supplied to do too much. We shall be pleased to help you further.

**NOTE.**—We regret that we are compelled to hold over replies to many correspondents this week.—ED: AM: PHOT:

## Monthly Competition.

No. 18.

### INLAND SCENERY, LANDSCAPE.

The following photographs have been received for the above competition:—

Title of Photograph.	Competitor.
A Yorkshire Glen	J. H. Fulton
Antwerp Environs	G. Robinson
Quakers' Walk, Devizes	L. D. Lester
Spring	D. G. Urquhart
Burn near Lochgoulhead	A. C. Hunter
Welsh Mountain Cottage	T. M. Eglington
Pond at Frenchay	W. T. Crank
Birch Trees	J. C. Oliver
Bridgnorth	H. P. Holmes
The Smyth	J. W. Eadie
The Hollow	A. E. Chapman
A Rustic Bridge	J. H. Thornton
The Old Church by the Mill	C. Court Cole
Wheat Harvest	A. Watkins
A Gloucestershire Valley	C. J. Evers
Springtime	E. Hyde
The Abbey Weir	A. H. Webbing
Muncaster Castle	Miss L. Ramsde
Trummerbach Falls	W. H. Sadler
The Bridge, Aber	G. Emery
Tremar Combe	Miss C. M. Glubb
Water Gate, Raglan Castle	H. C. R. Hide
Ann Hathaway's Cottage	H. Barry
Hayburn Wyke	G. N. B. Barker
In Stourhead Gardens	C. C. H. D'Aeth
The Ruined Cottage	Capt. E. J. Feilden
Water Mill, Balcombe	J. G. Potter
The Village Church	H. Maclean
Under a Spreading Chestnut Tree	W. A. J. Croke
Whicham Mill	T. N. Postlethwaite
Mill Dam, Swanage	W. R. Shute
Cornfield	W. H. Norris
Sheere, Surrey	H. Warwick
On the Wandle	P. Ennis
Pont-y-Pant	W. T. Tucker

Bosham Church	Surgeon D. Wardrop
Under the Cotswolds	A. Durn
Fairy Glade	G. W. Hulme
The Farmyard	H. Martin
Ben Lomond, from Luss	D. Cameron
Mill, Ashford	T. M. Brook
Lustleigh Vale, Devon	C. W. Thomas
Near Onchan	A. E. Forbes
In the Vale of Llangollen	G. J. Wightman
Aber, North Wales	F. K. Glasebrook
Baiting the Hook with the Early Worm	H. Wilkinson
Pencelrock, Pont-y-Pant	J. G. Jones
Maned Farm	J. Oswell Bury
The Village Club	H. H. George
By the Village Brook	G. F. Zimmer
A Woodland Dream	W. O. Williams
Near St. Antonien	H. J. McGill
The Castle	T. Harmay
North Bovey Village	E. F. L. Norton
Virginia Water	B. Davidson
After a Storm	A. R. F. Evershed
Holnicote	G. E. Wilson
An Autumn Evening	A. J. Jeffreys
Beaver Pool	A. J. Cleave

A Study in Light and Composition	A. E. Edwards
Sus Village, Switzerland	Miss Ellis
Old Mill, Ashford	J. Kidson Taylor
Pass of the Trossachs	C. V. Shaddell
Old Mill, North Wales	R. S. Robson
On the Whiteadder	W. Charles
Mill Dale	A. T. Newington
The Drive	L. W. Darra Mair
Lathom Woods	W. H. Shaw
Faggot Gatherers	G. A. Carruthers
Bodiam Castle	F. A. Robinson
On the Devilswater	C. F. McAllum
In a Derbyshire Valley	E. B. Wain
View in the Jumbles	W. C. Benton
A Quiet Corner	F. A. Edwards
Baloch Farm	A. H. Duncan
A Derbyshire Dale	E. Smith
Miller's Dale, Derbyshire	A. H. Gray
Fairy Glen	G. H. Healey
The Fringe of a Forest	C. Emanuel
Porlock Village	A. F. Macfie
Topley Pike, Buxton	H. H. Gray
Monnow Mill	W. Thompson
Stonehenge	Rev. G. E. Hermon
Clay Mill, Enfield	D. G. Pinkney
The Giant Rock	F. S. Taylor
Middle Lane, Winchmore Hill	G. Swinnerton
Jesmond Old Mill	J. W. Robson
On the Bath Road, Somerset	H. Yerbury
Steeplehill Cove	W. C. Marson
In the Gorge by the Aar	T. A. T. Scott
A Leafy Way	J. Parker Fowler
At Pickhurst Green	S. Marsh
The Departing Day	T. W. R. Brocklebank

Furness Abbey	R. N. Reid
Monnow Mills	W. Weston
Fenland	C. Smerdon Roe
A Wayside Study	E. W. Alabone
General Wade's Bridge	T. Barton
Idle Moments on a Summer Morn	J. W. Landon
In the Vaudois Alps	G. C. D. Rice
Durham Cathedral	G. L. Snowball
Norman Tower	C. W. Hammond
The Ancient of Days	A. W. Gottlieb
View in Bolton Woods	W. H. Scott
Threshing	G. R. Betjemann
Lumley Mill House	F. H. Broad
Lover's Walk near Cramond	A. F. M. Powell
In the Dingle, Colwyn Bay	W. H. Hunt
Keston Ponds	G. P. Waters
The Royal Albert Bridge	G. Preston
Autumn in Kew Gardens	E. C. Rawson
Ackworth Village Green	E. Lumley
A Quiet Nook	H. L. Hawkesley
Cherry Farm	W. Smith
A Warwickshire Lane	E. W. Barber
Near Southwold	B. S. Compton
In the Crown Lands, Eitham	P. Miles
A Lake at Enfield	James Dudin
Dalston Hall	Win. Todd
In Wanstead Park	T. J. Foster
Wethersfield, Suffolk	Rev. G. F. Sharland
An Old Avenue of Firs	J. S. Clark
The Brown Jug, Dumpton	A. Vigar
Capel Curig	H. L. Bridger
Waltham Cross	W. J. Battell
At the Top of Shanklin Chine	H. Nye
Crom-y-Glo, N. Wales	Miss M. J. Hands
Waiting for the Carriage	C. Greene
Soraba Road and Glen	W. Ritchie
Upper Lake, Roundhay Park	A. O. Beilby
Pont-a-Pair	J. Walsh
Lynmouth	A. G. Paterson
Gravetye Manor, Sussex	F. Turner
The Old Bridge, Ewell	J. Sims
Smithy Bridge	Mrs. L. Malcolm
Peep Through an Old Doorway, Bolton Abbey	James Waters
Warwick Castle	Miss A. C. Harmer
Snoir Bridge	W. Stewart



Through the Woods ...	G. Gosling
An Old Village Green...	A. R. Curing
Lynnmouth (from the Beach)...	W. R. Berry
Eglinton Castle...	T. S. Muir
The Road to the Fells...	J. W. Storey
Church Walk, Llandudno	L. Moonen
Shanklin Chine...	F. A. Cann
The Chine, Branksome	F. W. Kent
Swineshead Hunt ...	W. L. Barker
Dunster Castle ...	E. P. Vulliamy
In Hobbin Wood ...	Miss O. M. A. Cres-
	well
In Miller's Dale, Derbyshire	J. A. Walton
Durham Cathedral ...	Miss K. Griffith
An Argyleshire Burn ...	W. B. Windeler
Rhayader Gwy ...	J. Farker
Battersea Park ...	H. W. Herbert
Lawry's Mill ...	W. Blizard
Our House in Somerset	F. M. Gurrin
Ruins of Godstow Nunnery...	G. Smith
View in Giggleswick ...	Ellis Myers
Jesmond Dene ...	J. E. Billam
Cheddar Cliff ...	F. B. Smith
Spring ...	J. O. Grant
The Morning Mist ...	G. F. Firth
Bolton Abbey ...	S. Wilkinson
View near Landrillo-in-Rhos	J. Bamford
Burial Ground of the Mac-	
Gregors ...	Mrs. Benyon
Countess Weir ...	W. Street
Dunhill Castle ...	R. Atkins
A Highland Pass ...	M. S. Paterson
The Mill, Guy's Cliff ...	C. H. Adkins
Near Batley ...	T. J. Warner
Pickmill's Bridge ...	F. Udale
By the Willows, Marlow	J. D. Dickson
The Rippling Brook ...	C. Smallridge
Above Meirinaen ...	H. F. Kerr

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the

amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Air-Gun.**—Will give Gem air-gun (best), shoots darts, and 5s. cash, for Multum-in-parvo camera, 10 by 8, or quarter Meritoire set.—Waddell, 71, Malden Road, N.W.

**Camera, Lenses, etc.**—Lancaster's 1890 half-plate Instantograph camera and slide, tripod, fitted rapid rectilinear lens, f/8, new; bargain, 72s.—Camera, 2, Hawthorn Villas, Slad Road, Stroud.

Half-plate 1890 Instantograph camera, finest order, all improvements, lens, shutter, slide, stand, printing frames, dishes, measures, etc.; lot £4.—Webb, 31, Woodville Road, Walthamstow.

Nearly new 5 by 4 camera, splendid working order, Optimus rectilinear lens, reversible and swing back, three double dark slides, stand, and latest improvements; worth £7 10s., will take £5, or offers. Also two 5 by 4 Optimus lenses, viz., rapid Euryscope suitable for portraiture or landscape, 60s.; and a wide-angle symmetrical, 36s.; both new, and would fit above camera; would take 90s. for the two. Moreover, for sale, a new and beautiful 7 by 5 Optimus extra-rapid Euryscope, large diameter lens, not been used; 94s.—Address, Micklem, Milton Road, Wokingham.

**Condenser.**—Condenser, 10 in. diameter, mahogany base, with iron standards, also bellows enlarging camera, 12 by 15, with carriers to quarter-plate, can be seen by appointment; price £3, or will be sold separately.—William Wells, 14, Girdler's Road, West Kensington.

**Concert Flute.**—Concert flute, eight keys and tuning slide, excellent condition, and perfect tone; cost £3 10s., price 27s. 6d., approval.—Apply, 2, Acre Lane, Brixton, S.W.

**Hand-Cameras.**—Hand-camera taking 12 pictures 3½ by 2½, in case, with 24 plates; 21s.—O. Greene, 20, Philbeach Gardens, Kensington.

Fallowfield's Facile hand-camera, in perfect order, quite new; cost £5 5s.; will take £3 15s.—Rector, Aerie, Folkestone.

**Hand-Cameras, etc.**—Deal hand-camera and alpenstock tripod; price 84s.; or exchange for whole-plate camera; mutual approval.—Glover Harrop, Ossett, Yorkshire.

**Lenses.**—Rouch's 5 by 4 instantaneous double lens, as used in the Eureka camera; 30s.—Perrett, Fairfield, Farnham, Surrey.

Optimus Euryscope, 7 by 5, new; £3 12s.; cost £4 14s. 6d.; approval; deposit.—Bennett, 43, Avenell Road, Highbury.

**Lenses, etc.**—Rapid rectilinear lens, half-plate, moveable hood, Waterhouse stops, fine definition, covers plate well to edges, for views, portraits, etc.; 30s.; approval.—Thurlo, 23, Gotha Street, Victoria Park.

Winter snap-shots!! Taylor's 5½ in. defective lens, Iris diaphragm, adjustable to f/5.6, fitted with

Shew's patent revolving shutter, excellent condition, equal to new; list £4 17s.; price £3.—L., 91, Turton Street, Bolton.

Vever's quarter rectilinear, 15s.; quarter tripod, 5s.; Lancaster's folding lamp, 3s. 6d.—T. Hall, Pinfold Lane, Lancaster.

Taylor's 8 by 5 wide-angle, new, cost 80s., sell 60s.; Atkinson's whole-plate R.R., cost 60s., sell 45s.; W.A. 5 by 4, cost 25s., sell 16s.; exchange for 12 by 10 R.R.—Bathe, Abbey Road, Torquay.

**Magic Lantern.**—Mahogany magic lantern, 4 in. condenser, 4-wick lamp, guaranteed nearly new and perfect; cost £4 10s.; price £3 15s., with some slides.—Box 1, Mallow.

**Microscope, etc.**—Photo-micrography. Microscope, two powers, quarter-plate camera, gas lamp, complete, new; £5.—Burr, Westgate, Gloucester.

**Roll-Holder.**—Quarter-plate Eastman roll-holder, perfect, with transparent film; 33s.; or exchange good lantern.—J., 21, Cheapside, Lancaster.

**Scales, etc.**—Scales and weights, 2s. 6d.; 60 AMATEUR PHOTOGRAPHERS, 7 by 5 single lens, 10s.; Tylar's window shutter, 2s.; Wratten's drop shutter, cost 12s. 6d., 6s.; Optimus cabinet burnisher, 18s.; retouching desk, 8 by 6, 4s. 6d.; 8 by 6 exterior background, 10s.; exchange all above for whole-plate R.R. lenses.—Tooth, Stephen Street, Rugby.

**Shares.**—10 fully-paid shares in Automatic Photographic Co.; what offers?—J., 1, Oxford Villas, Sudbury, Middlesex.

**Sundries.**—Three strong wood, glass bottom, toning or fixing dishes, equal new, 24 by 19, twelve negatives, quarter-plate, interesting views, Lichfield Cathedral, Dr. Johnson's places; cash or exchange; offers; want half-plate camera.—Moore, John Street, Lichfield.

## WANTED.

**Camera.**—Light quarter-plate camera, cheap for cash.—W. Scaling, Basford, Nottingham.

**Cameras, etc.**—Whole-plate square camera, or 10 by 8, all latest improvements, three double backs and tripod, Optimus 3B portrait lens, Dallmeier's 3D or 4D portrait and group lens, must be in perfect order.—Aspin, Clayton-le-Moors, Lancashire.

**Cameras, Lenses, etc.**—Whole-plate camera and lens, also quarter-plate retouching desk.—Hummel, Box 7, Quayside Office, Newcastle-on-Tyne.

Modern 10 by 12 set, with rapid rectilinear; state lowest price.—D., Woodside, Crookham, Newbury.

**Dark Room.**—An amateur wants to rent a dark-room, with water laid on, by the month; must be near Hyde Park or Piccadilly.—No. 82, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

**Enlarging Apparatus.**—Enlarging apparatus, 5 in. condensers, must be first-class instrument.—Hummel, Box 7, Quayside Office, Newcastle-on-Tyne.

**Magic Lantern.**—Magic lantern; exchange good violin, value 70s.; would sell violin, 55s.; approval.—Walter Davies, Newbury.

**Microscopic Attachment** for magic lantern.—W. N. Cheesman, The Crescent, Selby.

**Negatives or Lantern Slides** of athletic contests instantaneous effects preferred.—Address, Athletics, 10, Throgmorton Avenue, E.C.

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## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the Amateur Photographer are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LTD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the Amateur Photographer are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, Amateur Photographer, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, Amateur Photographer, 1, Creed Lane, Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS of the AMATEUR PHOTOGRAPHER offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 9.—SEASCAPE AND RIVER SCENERY	Dec. 1.
" 20.—PORTRAITURE AND FIGURE STUDY	Jan. 1.
" 21.—ANIMALS AND INSTANTANEOUS SUBJECTS	Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the AM: PHOT:

All photographs for any of the above competitions will be acknowledged in the columns of the AMATEUR PHOTOGRAPHER.

All photographs criticised, and several reproduced every month, in the Photographic Reporter.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.



# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645      Telegraphic Address: VINEY, LONDON      Offices: 1, Gress Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 319.]

FRIDAY, NOVEMBER 14, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—Shakespeare.

It is with much pleasure that we inform our readers that Mr. E. J. Wall, author of "The Dictionary of Photography," has consented to join the editorial staff of the AMATEUR PHOTOGRAPHER. He, with other members of the staff, will be in attendance on *Monday afternoon from two to five* and will be prepared to give advice on all matters connected with photography. New printing processes, developing formulæ, apparatus, etc., will be explained, and early in the year a section will be started for testing exposed and unexposed plates, criticising and reporting upon negatives and prints, and advising generally upon matters which are often stumbling-blocks to amateur photographers.

\*\*\*

IN our correspondence columns we publish a letter from Mr. A. Jeffreys, a competitor in the last "Monthly Competition." We must admire Mr. Jeffrey's outspokenness, and possibly the time is not far distant when we shall offer some inducement to those who can use the brush as an aid to photography in the production of artistic work, to enter a special competition. Certainly Mr. Jeffrey's contribution to the competition is the work of an artist who has a love for the beautiful in nature, whether depicted by the photographic lens or brush, or by the combined work of both.

\*\*\*

THE instructions issued by makers of plates, etc., are now to the front, and the experience set out in the letter from Mr. W. H. Haines will be endorsed by many. The question very naturally will be asked, Why do makers give instructions which, in the hands of inexperienced workers, are too often unworkable? In the matter of developing formulæ, the makers' quantities, if used, bring much misfortune upon the worker; the formulæ are unnecessarily hampered with conditions, and to some are unintelligible.

\*\*\*

THE "stale plates" question is likely to receive considerable attention, and although our correspondent, Mr. Johnson, has succeeded in obtaining good negatives upon a certain brand of plates which he has kept for three years, it does not follow that plates kept in a chemist's shop or in a damp cellar would produce equally good results. It is due to the buyer that every box of plates offered for sale should be dated, and so give the purchaser the opportunity of knowing when the plates were made.

\*\*\*

THE Brixton and Clapham Camera Club prospers exceedingly, and we are pleased to note that the membership is increasing. The Secretary writes: "We do not forget that

to your kind recommendation we owe our thanks for helping to secure Mr. Dresser as President, and you will be glad to know that we have in Dr. Reynolds a good Vice-President. I first saw his name in the last number of the *Quarterly*."

\*\*\*

WE must say another word about the 1890 AMATEUR PHOTOGRAPHER "Lantern Slide Competition." Slides are coming in, and there is every promise of a larger number of entries than last year. All the arrangements have been made for exhibiting them throughout the country, and no further application can be entertained until after Easter. We have consented to show them in many places ourselves, and so well has the ground been covered that during several weeks they are to be shown in four towns on as many evenings. We hope to show the slides three evenings following under the auspices of three of the largest photographic societies in the kingdom. If possible, each set of slides will be introduced by projecting a portrait of the prize winner on the screen, and giving a short account of his or her photographic work. As the slides of each competitor, ten in number, must be entered in one class or subject, there will not be that incongruity of subjects general in "prize slides." We shall send out with the slides a letterpress account of them, and the original entry forms, which contain many particulars interesting to the lantern-slide worker. Latest day, Saturday, 22nd inst.

\*\*\*

WE shall have something more to say about the "Developing Competition," possibly next week.

\*\*\*

TO-DAY (Friday) the Photographic Exhibition at Edinburgh will be opened by the Lord Provost. Our "At Home" at the Waterloo Hotel promises to be largely attended. Until our registers were searched, in order to issue invitations, we had no idea how many friends we had "across the border." We are looking forward with much pleasure to meeting them, and to having the opportunity of making ourselves personally known to those who take so keen an interest in the welfare of our many publications. The "Travelling Studentship" prints will be on view, for we do not forget that one of the prize winners was a Scotchman, Mr. A. D. Guthrie, Secretary of the Leith Photographic Society. Tea will be served at five o'clock, so that visitors will have ample time to attend the opening of the Exhibition, which is fixed for 8 p.m. We understand that the show will be excellent, and we are sure that the executive have done all they could to make it so. Mr. Barclay



has, we know, had his hands full, and to him will be due, in a great measure, the success of the Exhibition. Next week we shall, of course, refer at some length to the exhibits, and the reception accorded to ourselves in the "land o' the leal."

\* \* \* \*

WE have heard to-day that H.R.H. Prince Henry of Battenberg has graciously consented to be a patron of the Ventnor Photographic Exhibition. We shall have the pleasure of exhibiting the 1890 Prize Slides on the evening of Monday, the 19th of January, in the Assembly Rooms, Ventnor.

\* \* \* \*

THE Secretary of the Brechin Photographic Association, Mr. J. Ross, writes that upon the occasion of a recent public lantern exhibition, a collection was made at the door, realising no less a sum than £5 after payment of expenses. We throw this out as a hint to other societies.

\* \* \* \*

MR. A. R. DRESSER recently delivered his lecture on "America," at Bloomsbury, before the members of the Bloomsbury Young Men's Club, and exhibited a number of views illustrating a lengthened tour in the North-West States of America. At the close of the lecture, Mr. Dresser threw on to the sheet some of his slides which have obtained distinction at American photographic exhibitions, including two or three very fine studies of breaking sea waves.

\* \* \* \*

MR. HAROLD SENIER sends us a letter having reference to a proposal to establish a Camera Club in South London which shall at once be a photographic and social club. Some of our readers will be interested in the movement.

\* \* \* \*

MR. PAUL LANGE exhibited his "Tour in Norway" before the members of the Manchester Amateur Photographic Society on Tuesday evening.

\* \* \* \*

MR. GAMBIER BOLTON calls our attention to the fact that the Edinburgh Exhibition will mark an epoch, for the reason that animal photography will for the first time be recognised as a branch of "scientific" photography, a point for which Major Nott and Mr. Bolton have been aiming for some years.

\* \* \* \*

A RECENT competitor says, "Your reproduction of my photograph in 'Holiday Work' was an improvement upon the original. After your encouraging criticisms, I am hoping for greater things. The *Reporter* is now a capital journal, and will, I trust, become as successful, financially, as the AMATEUR PHOTOGRAPHER must be."

\* \* \* \*

THE *Review of Reviews* quotes at some length from Mr. E. Murchison's article in the *Photographic Quarterly*; and of "Holiday Work" the Editor says, "A most useful work for amateur photographers. It is a kind of 'extra' which embodies the result of photographs sent in from all parts of the kingdom by amateurs. . . . Amateur photographers will find this 'extra' very useful, if only for purposes of test and comparison."

\* \* \* \*

WE have received a letter from Mr. Walter Adam Brown, President of the West London Photographic Society, having reference to the "desirability of getting special rates for photographers from the railway companies, when travelling for the purposes of the art." We regret that the calls upon our space will not permit us to publish Mr. Brown's letter this week, but we shall do so in our next issue. The sub-

ject has been broached before in the columns of the AMATEUR PHOTOGRAPHER, but with no practical result. The privileges accorded by some railway companies to members of angling clubs was then brought forward as a reason for like privileges being given to photographers. At that time there was not the unity amongst workers in photography that there is now, nor was there then the machinery of the various photographic societies to unite and lay the matter before railway companies. We shall be much interested in the outcome of the movement, and will do all in our power to help the promoters, to whom, even though they may not succeed, the thanks of all workers in photography are due. Mr. John Hodges, 87, Chancery Lane, W.C., Hon. Secretary of the West London Society, will be pleased to hear from any of our readers.

\* \* \* \*

SOME of our readers are interested in geological photographs. We would call their attention to a circular just issued by the Committee appointed by the British Association for the Collection, Preservation, and Systematic Registration of Photographs of Geological Interest in the United Kingdom. Mr. Osmond W. Jeffs, the Secretary of the Committee, whose address is 12, Queen's Road, Rock Ferry, Cheshire, will gladly forward a copy of the circular, which gives most exhaustive instructions for those who may be willing to help the Committee to secure representative photographs.

\* \* \* \*

AT the last meeting of the Society of Chemical Industry (London Section) a paper was read by Mr. A. G. Green, on "The Diazotype Process of Photographic Printing," which has recently been patented in this country by himself and Messrs. Cross and Bevan.

\* \* \* \*

A PARAGRAPH in the *Daily News* for the 10th inst., upon the proposal of Mr. F. E. Barber, that "the old-fashioned practice of keeping a personal diary shall give way to a thoroughly exhaustive series of photographs, following the ups and downs of one single existence," has prompted us to promote yet another competition, not a photographically illustrated life of the sender, but photographs taken from life of "The Seven Ages of Man." These photographs must pictorially describe the well-known lines from Shakespeare's play, "As You Like It" (Act ii, Scene vii).—

"At first the infant, mewling and puking in the nurse's arms.  
"And then the whining schoolboy, with his satchel and shining morning face, creeping like snail unwillingly to school.

"And then the lover, sighing like a furnace, with a woeful ballad made to his mistress' eyebrow.

"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth.

"And then the justice, in fair round belly with good capon lined, with eyes severe and beard of formal cut, full of wise saws and modern instances; and so he plays his part.

"The sixth age shifts into the lean and slipper'd pantaloon, with spectacles on nose and pouch on side; his youthful hose, well sav'd, a world too wide for his shrunk shank, and his big manly voice, turning again toward childish treble, pipes and whistles in his sound.

"Last scene of all, that ends this strange eventful history, in second childishness and mere oblivion, sans teeth, sans eyes, sans taste, sans everything."

The subjects must not be got-up, to use a theatrical term, but must be in the ordinary costume and with the ordinary surroundings of daily life. Four prizes will be offered, Gold, Silver, and Bronze Medals, and a Certificate. The winning sets will be published in some form hereafter to be decided upon.



### THE WINTER'S WORK.

In a recent issue, we referred to the winter work of photographic societies, and the necessity of providing members with demonstrations, more particularly such as have to do with development and printing, was strongly insisted upon. No more need be said on this branch of the subject, except that demonstrations in enlarging and lantern-slide making should by no means be omitted from the subjects provided at members' meetings. Turning to the consideration of apparatus: evenings specially devoted to the exhibition and explanation of special types of apparatus are in all ways attractive and useful.

Who does not wish for an opportunity of comparing, say, various makes of new hand-cameras or of shutters? And where can such things be better examined and contrasted than at a society's meeting, where a number of makes are on view which can be handled and discussed by all without *arrière pensée*? And here we come upon a stumbling-block, i.e., the difficulty there is of getting adequate and clear verbal description of the principles and *modus operandi* of the articles shown. Yet such description is most necessary, and should in all cases be provided; for there is manifestly little use in handing round various exhibits for members to look at, which is all that can be expected of them, unless some one can tell them what are the advantages and disadvantages, and what the construction, of the particular object being shown. To this end (and for other occasions) every meeting-room should have a properly made black-board, so placed that those who wish to do so may illustrate their explanations by diagrams.

And here we would remark that many of the humbler tools and appurtenances in use are very much overlooked, although to the majority they are, may-be, quite as interesting subjects of debate as are the more intricate ones. For instance, one of the best sustained discussions which we have lately taken part in was on the subject of developing dishes, a topic which seems at first sight very prosaic and unpromising, but which afforded matter for much useful talk. Of course it "caught on," because nearly everyone could say something about the question. If members can only be got to talk, it is surprising what interest and information ensues, but the average Briton, especially a photographic Briton, is averse to "public speaking," or rather is diffident of his oratorical abilities: this diffidence the executive of societies must overcome as best they can.

Another important subject claiming attention is abstract art. One evening during the session, at the very least, should be devoted to expounding elementary composition. Art is a "big order," therefore care should be taken not to try and cram "too much of a good thing" into one lecture. A very useful stock subject, and one allowing of considerable latitude of treatment, is to describe the *power of contrast*, (a) of lines, (b) of light and shade. This will form either one or two lectures, according to individual ideas and capacity. It is hardly necessary to add that illustrations should be provided by means of the blackboard or optical lantern, showing reproductions of suitable works of art. It must, of course, be accepted that proficiency in art cannot be acquired by lectures or books; these merely teach the rules, which for this successful application demand an eye cultured to appreciate the beautiful, and a mind able to wrest it from the grasp of nature. It is the glory of photography, as practised by amateurs, that it has opened the eyes of thousands to the fact which was previously quite unsuspected, namely, that they are encompassed by the beautiful, and literally live in the midst of a very world of pictures. That these have not heretofore been appreciated is because they have not been looked for, or been only looked for with an untrained eye.

To some it may appear strange, but it is well known, that the organ of vision needs considerable education, even for the proper seeing of very simple forms. For example, Dr. Hermann Vogel states, "A man born blind, and who recovers his sight by an operation, cannot at first distinguish a cube from a sphere." He readily distinguishes between the two by *touch*, but cannot by *sight*, until he has learnt to see. This is an extreme case, but any artist can bear witness to the lack of perception in the *profanum vulgus*. For instance, not one in ten of the ordinary folk will see any colour beyond black on the side of a tarred boat; yet an artist can distinguish quite a wealth of purples, greys, blues, and browns, besides other colours, according to the tone and direction of the light, and the hue of the surrounding objects.

Enough has been said to prove that the amateur must cultivate his power of observation if he wishes his productions to possess "artistic merit." Without this quality no photograph can claim to stand in the front rank.

### Negatives and Positives.

THE *Ultima Thule* of automatic-photographic apparatus has been reached. The very latest last is an apparatus which not only takes your portrait by any light, at any distance, and in any style, etc., but also turns you out as a charmingly-framed picture, securely packed and directed to the lady-love of your choice, and, moreover, delivers the same to the nearest railway station carriage paid, also writes and posts for you an appropriate note offering the lady of your choice your heart, hand, and photograph, together with a stamped and directed envelope for reply. Can any reader suggest anything further to the inventor before the complete patent is signed, sealed, and delivered?

\* \* \* \*

It is a very curious thing that when the price of silver falls, the consumer of plates and silver-paper still pays the same sum; but when the price of platinum advances, the cost of "platinum" papers is very materially increased. If the price of platinum continues to increase at recent rates, we shall presently be reduced to buying the platinum papers, etc., by the square inch. Ultimately, a bit big enough to be seen by means of a powerful microscopic objective will become an object of envy and covetousness.

\* \* \* \*

WE read that Mr. H. A. Jones has been lecturing on the drama, and saying that "a stage play should never be mistaken for real life, since the art that deceives you into taking it for nature itself is inferior, etc." This is not new, of course, but it is none the less noteworthy. Far, far too many photographers are content with trying to imitate minutely any and every phase of nature, without stopping to inquire whether it is possible or *desirable* to record any part of the proposed subject. Selection lies at the very root of art. Slavish imitation is radically opposed to art.

\* \* \* \*

*Things we would have left unsaid.*

ELDERLY and "decidedly plain" spinster to her bosom-friend—a "blooming bride":

"Where did you get these charming photos, dear?"

B. B.: "From Argentum and Bromine. They flatter me dreadfully, but they flatter all their sitters, and make quite plain people passable. . . You really *must* give them a trial."

(She did give them a trial, and now, "they don't speak.")

\* \* \* \*

AUNT BELINDA wants to know "how can the stupid man



expect to get a *speaking likeness* when he always tells me to *close my lips* and think of the days of my childhood?"

\* \* \* \*

In the columns of a contemporary Mr. W. E. Debenham, in a paper read by him before the London and Provincial, is reported as having said:

"One writer who now makes the fact that we see with two eyes his chief ground of defence for blurred definition, says that if images taken stereoscopically are put into a pair of lanterns and projected upon a screen, the images, will coincide. The answer to this statement is very simple—they will not coincide upon the screen."

We who read this discourse have now three courses open to us to select from, viz., we may accept either statement to the exclusion of the other, or accept both, or reject both. The argument (?) in refutation of the former statement is not *exhaustive*.

\* \* \* \*

"MURDER will out"—so runs the old saying. The recklessness of our staff poet has speedily brought condign punishment upon his guilty head. His miserable example has been the seed of which the following, from one of our esteemed correspondents, is the first fruit:—

"Once there were two naturalistics,  
And they were as cross as two sticks,  
When one got diffused  
The other refused  
To believe it—but felt in a tight fix."



## Letters to the Editor.

### THE STEREOSCOPE.

SIR,—May I be permitted to point out a misapprehension which exists in the matter of copying negatives, and which the writer of the article on the stereoscope also appears to labour under? In the last paragraph of Mr. Blanchard's last article, page 312, he says, "For stereoscopic work it will be necessary that they (the camera bellows) extend in front of the lenses as far as they are behind them, and a partition must be carefully fitted both before and behind. If the lens is 6 in. focus, the bellows must extend 12 in. before and behind."

The bellows *before* the lens is not at all necessary, nor is any partition; and both may be dispensed with by placing the negative in position in the bottom of an ordinary open box (cigar box raised a little will do), and copying it direct as you would any ordinary picture. If the box containing the negative is fastened on a base-board, an ordinary stereoscopic camera can be screwed to the same base-board from beneath with its own tripod screw, rendering the whole rigid. The open space between the camera and negative box in no way effects the object desired. A partition must, of course, be in the camera containing the transparency plate, but is unnecessary anywhere in *front*.—Yours truly,

F. S.

\* \* \* \*

### THOMAS'S LANTERN PLATES.

SIR,—For a considerable time after these excellent plates were put on the market I used them with both success and satisfaction. Then came a period of mysterious and annoying failures. I could get nothing but ghosts. After wasting many boxfuls, I reluctantly gave them up. Last week, however, I was induced to try them again. The instructions given with them state that the exposure is thirty seconds to a gas flame. I had begun to suspect that this was insufficient, and now gave them the same exposure as the Alpha plates—an inch and a half of magnesium ribbon burnt about a foot in front of the frames. The result was that from twelve plates I got twelve splendid lantern slides. It would appear from this experience that the plates are from five to ten times slower than advertised. The instructions are the same as at the first issue, but the emulsion seems to be much slower. Have any brother amateurs had similar experiences? Perhaps Messrs. Thomas will kindly enlighten me as to the real rapidity of their splendid lantern plate. I used hydro. developer made with carbonate of potash and soda (the original formula).—Yours truly,

W. H. HAINES.

### A PROPOSED CAMERA CLUB FOR SOUTH LONDON.

SIR,—For some time past the North Surrey Photographic Society has been making efforts to establish a camera club in South London. A scheme has now been formulated which promises to be an entire success, provided we can obtain a fair amount of support and co-operation from amateurs residing in the neighbourhood.

It is proposed to take premises which shall include a large meeting room, commodious dark-rooms, library, enlarging rooms, etc., with arrangements for the supply of refreshments and eatables.

A club founded on these lines, while offering all the advantages of a social club, would also provide for the carrying on of photographic work by members who wished to take advantage of it, while its promoters believe from very careful estimates that the whole expenses will be met by a guinea subscription.

The districts included in the scheme would be Norwood, Dulwich, Brixton, Herne Hill, Streatham, Sydenham, etc., the site of the premises to be as central as possible.

May I request any gentleman willing to co-operate in such a scheme to communicate with me so that a meeting may be called to set the matter in motion?—Yours truly,

88, Norwood Road, S.E.,

HAROLD SENIER

(Hon. Sec., North Surrey Phot. Soc.)

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### INTENSIFICATION OF PRINTS.

SIR,—It struck me when first reading Mr. Lyonel Clark's proposal to intensify a partly printed-out proof, that, unless the silver chloride had been carefully kept from the influence of such light as would cause a developable molecular change, there would be a deposition of metallic silver over the whole surface. I notice a letter in your issue of October 31st, in which "H" complains that this is what happens, and a hasty experiment of my own tends to confirm his view. It may be that this is so evidently to be expected that Mr. Clark did not think it worth while giving any caution on the subject, but then commercial paper would be useless unless prepared, and kept, as carefully as is usual with an emulsion paper.

Mr. Clark does not consider the process one of development, nor should it be one if it is to be successful, but, unfortunately, both "H" and myself find that we cannot stop short at the intensification of the feebly printed-out image, but where the silver salt has been influenced by the "ethereal wave" there development proper sets in.

If Mr. Clark will give us a word of instruction—he is well able to do so—there will be two, at all events, who will thank him—namely, "H" and, yours truly,

I.

\* \* \* \*

### DIAZOTYPE PROCESS.

SIR,—Will you kindly correct a mis-statement of your correspondent, "F. G. S.," in "Science Notes" of your issue of 31st October.

He describes the "Diazotype process" as the invention of Mr. Green, of the firm of Green, Cross, and Bevan.

Mr. Green, research chemist to the firm of Messrs. Brooke, Simpson, and Spiller, Ltd., is the discoverer of Primuline, the colouring matter employed in the process; but the photographic application of this dye is the joint discovery of Mr. Green and Messrs. Cross and Bevan, and our partnership is limited to the development of this particular process.—Yours faithfully,

GREEN, CROSS, AND BEVAN.

4, New Court, Lincoln's Inn, W.C.,  
November 5th, 1890.

\* \* \* \*

### PHOTOGRAPHS AND THE BRUSH.

SIR,—Your very kind notice of my picture "An Autumn Evening" is very encouraging to me, and I beg to thank you for it. Your judgment as to use of colour on print is quite correct. I used colour on stems and leaves because when printing in clouds I cut the mask rather too low in that place, consequently the detail was lost; since then I have altered, thus obviating the use of colour there. The other places are foreground reflection and horizon. The foreground reflection after printing with reversed cloud negative developed too light, so I treated it to a wash of water colour, and also the horizon. I did this to help the general



effect, and to make the most of the subject. If I have erred I am sorry, but it is very hard to keep one's brush from a print when there is room for improvement. Of course, it is my ambition to be the happy possessor of an AMATEUR PHOTOGRAPHER Medal, and your kind notice will prove an incentive to further efforts. I took up photography from an artistic point of view, and have received very much help and enlightenment from your valuable paper. Apologising for the length of my letter, I remain, yours, etc.,

ALF. J. JEFFREYS.

NOTE.—We quite appreciate the candour of this competitor in our "Monthly Competition No. 18, Inland Scenery." Had the prizes been offered for photographs aided by brush and colour, "An Autumn Evening" would certainly have secured a medal.—ED : AM : PHOT :

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#### POSITIVES AND NEGATIVES.

SIR,—In No. 317, page 314, of your justly popular AMATEUR PHOTOGRAPHER, is the report of one of the many interesting meetings of the Camera Club.

The subject discussed, "The Production of Positives and Negatives," is one upon which little information is forthcoming, but I think, through the medium of your correspondence columns, more light might be thrown upon this matter.

For instance, on exposing a sensitive plate in the camera, is the first image produced a negative or a positive?

I have in my possession a positive produced as follows:—Plate, Ilford ordinary; exposure, one-thirtieth of a second; stop,  $f/20$ ; time, 4.30 p.m., May; scene, house by riverside, surrounded by thick overhanging trees.

I also exposed another similar plate on the same scene, giving an exposure of three seconds, and got a fully-exposed negative. Both were developed with quinol, Ilford formulæ.

If any of your readers can give me any information on the above, I shall feel greatly obliged.—Yours faithfully, ME.

November 5th, 1890.

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#### "THE DICTIONARY OF PHOTOGRAPHY."

SIR,—I have not for one moment intended to claim priority with regard to the table of angle of view, as might be inferred from the Rev. Dr. Woodman's letter in your issue of last week, page 322; the said rule and table were taken from my note-book, and had I known the author, I should have been only too pleased, as you suggest, to have acknowledged the same, but the table was copied by me first in 1886 from some source which I cannot now trace. Dr. Woodman is well known to me from his clear notes on optical matters, and I gladly give to him the honour, and will note for correction if another edition be called for.

Perhaps you will also allow me to state—in answer to Mr. Ed. B. Wain's letter, Oct. 24th, page 287, wherein he says, "Mr. Wall in his 'Dictionary of Photography,' says a sepia-coloured image may be obtained by platinum, but gives no definite instructions"—if Mr. Wain will turn to the work in question, first edition, page 23, he will find that *I do give definite instructions*, which commence on the sixth line from the top of the page. What I have omitted to do is to state that when the silver has been converted into chloride by the action of the cupric chloride, placing the print in an ordinary fixing bath would dissolve out the chloride of silver, leaving the deposited platinum *in situ*. In the second edition of the same work Mr. Wain will find directions for toning bromide paper as he suggests, which process I announced in the "International Annual," 1889, page 267, but gave no directions.—Yours truly,

E. J. WALL.

London, November 8th, 1890.

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#### NEGATIVE EXCHANGE CLUBS.

SIR,—May I ask you kindly to insert these few lines, which I know will be read by the different members of the above clubs.

Will members, any of whom have boxes in their possession, kindly post on to the next member on the list, at once please, as no boxes have reached me since August last, and a box should arrive each fortnight.

I am afraid that all the boxes must have congregated at one member's house, possibly during his absence from town, as I have heard the same complaint, of no boxes to hand, from a number of the members.—Yours, etc.,

WENTWORTH A. J. CROKE.

16, Warwick Crescent, W.

November 10th, 1890.

#### STALE PLATES.

SIR,—I have read lately much about stale plates, and wondered what time is necessary to make a properly prepared dry-plate stale.

The following may be interesting to your readers.

Three years ago last July, I wanted to take a group of workmen at my cement works. I had no 12 by 10 plates, so wrote to Messrs. Wratten and Wainwright to send me three. As they only make packages of six, they sent me that quantity. I used only one for the purpose named, and put the others in a box in my dark-room, without any special precaution for their preservation. They remained there until last Good Friday morning, when, out of mere curiosity, fully expecting these plates were spoiled, I took my 12 by 10 camera and Ross' doublet into one of the roads here, where there are villas with trees in front, and exposed one of these old plates with small stop for five seconds, and, to my surprise, I got one of the best dry-plate negatives I ever made.

As an amateur, I use my 12 by 10 camera very little, it being too heavy for me, but I use a great many whole and half plates in the course of the year, but am not troubled with stale plates. Nevertheless, it would be satisfactory to users if makers would put the date of issue on each batch.—Yours faithfully,

Gravesend,

I. C. JOHNSON.

November 10th, 1890.

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#### VIGNETTING LANDSCAPES.

SIR,—Whilst endorsing most cordially the admirable decisions of the judges in the late "Holiday Work Competition," permit me, Don Quixote like, the luxury of a "tilt" at the "windmill," critique which appears in your Special Number just out. To have a fiddle batted down over one's head and ears at all is bad enough anyway, but when it happens to be one's own pet instrument (and not the other fellow's) it is ten times worse.

Vignetting landscapes happens to be a pet photographic "fiddle" of mine. Thus—

To photograph is to make a picture.

To make a picture is true art.

To vignette a view (under many conditions) is very true art.

Therefore, to vignette a photograph (under like conditions) is to make a picture. Q. E. D.

With regard to the "tops of the grand rime-covered trees," well, it is said to be true that when Paddy found his blanket too short for comfort, he cut a piece off the bottom and stitched it on to the top, but he did not make a picture of it for all that.

Alas! alas for we of the outer court of the Gentiles in the temple of art! *Salve critice!* There is no appeal from Caesar!—Yours truly,

W. J. FARTHING.

November 10th, 1890.

NOTE.—For the critic's opinion, see "Holiday Work," p. 15.—ED : AM : PHOT :

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#### MR. ROBINSON AND MR. MASKELL.

SIR,—In answer to Mr. Robinson's letter, I refer all your readers that are interested in such trivial ancient history as that of photography to the *Photographic News* for 1864-74. They can then judge for themselves, and if any are curious I can supply them with the names of the authors of certain stupid anonymous letters. For Mrs. Cameron's opinion of some self-appointed preachers, note her "Annals of my Glass-house." Was not the author of "Brenda" Mr. H. P. Robinson? Mrs. Cameron's later works are not sharper than her earlier works. In fact, one of the earliest (1865) is sharper than some of the last. The only way to settle this is to refer to the works themselves. Mr. H. H. Cameron, of 70, Mortimer Street, Regent Street, W., will, I am sure, be glad to show them to all interested persons.

The original passage which Mr. Robinson quotes was first published in the pages of the *Photographic News* (I cannot give date, as I am away in the country), and afterwards published in "Pictorial Effect." Alas! the day. Perhaps Mr. Robinson will look up and tell us how much time elapsed between the first appearance of the passage in the *Photographic News* and the publication of that great work, "Pictorial Effect."

I regret, for the sake of the argument, that Mr. Williams was dead in 1874. I quoted from memory and thought I had read that date in a paper contributed to the *Camera Club Journal*, by



Mr. T. R. Dallmeyer. I must apologise to Mr. Robinson for putting the date wrong (if this be so, perhaps Mr. Robinson will oblige me by looking up this point also, since I have no access to books here, in my wherry on the Norfolk Broads). But, after all, this is a mere quibble, for what I said is true. The late Mr. J. H. Dallmeyer made a special (Petzval form) lens with positive spherical aberration *first* for the late Mr. T. R. Williams. Further, Mr. T. R. Williams then asked for positive spherical aberration introduction *at will*. If Mr. Robinson is over anxious, I will give him further evidence on this point. But to me this raking up of such unimportant matters as early photographic history is only useful as being amusing and showing the ways of not over able human nature.

Mr. Colls will be very pleased to answer Mr. Maskell's query, and I confine myself at present to repeating my statement. Before amateurs write upon art they should study the subject first, and find (secondly) if they have any artistic ability. We want more "practical artists" and less writers.—Yours, etc.,  
P. H. EMERSON.

## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 309.)

MANY of the acids are soluble in water, but some only to a slight extent, whilst others are insoluble. Soluble acids have a sour taste. Some are highly corrosive, but many do not show this property. The soluble acids produce well-marked changes in certain colouring matters, and these changes are used for the detection of *acidity* or an *acid reaction*. It is necessary to distinguish between an *acid* and a substance which is acid (using the word here as an adjective) or, in other words, shows an acid reaction, for whilst all the acids have an acid reaction, there are many substances which show a similar reaction but are not acids in the proper sense of the word.

One of the most useful colour-reagents used for the detection of acidity is *litmus*, a purple colouring matter prepared from certain lichens. When mixed with acids the purple colour is changed to red.

EXPERIMENT 64.—Make some litmus solution and try the effect upon it of small quantities of the acids which you have in your possession.

[To prepare litmus solution 1 part of the solid substance is shaken for some time with 50 parts by measure of hot water, and the solution is filtered. It must be kept in a bottle to which air has free access, for if the air is excluded the litmus undergoes fermentation and the colour disappears. Should this happen, the colour may be restored by exposing the liquid to the air for some time. In order to obtain *red litmus*, a quantity of the blue solution is mixed with small quantities of very dilute sulphuric acid until the colour is just turned to bright red.

Strips of unsized paper may be dipped into the red and blue solutions and dried, when they constitute *litmus paper*.]

The fact that the litmus became red in Experiment 31 *b*, proved that the compound produced by the union of the sulphur with the oxygen formed an acid substance when brought in contact with water.

The names of acids which contain carbon have originated in many ways, but the names of the acids which do not contain carbon are derived from their characteristic constituent, as in the case of nitric and nitrous acids, which contain nitrogen, and sulphurine and sulphurous acids, which contain sulphur.

Different acids formed by the same elements are distinguished by giving to their names different terminations, according to the proportion of oxygen which they contain. In a group of acids containing the same elements, the name of that which contains the greatest proportion of oxygen has the termination *ic*, thus, nitric acid,  $\text{HNO}_3$ ; sulphuric acid,  $\text{H}_2\text{SO}_4$ ; phosphoric acid,  $\text{H}_3\text{PO}_4$ . The acid which contains the next lower proportion of oxygen is distin-

guished by the termination *ous*, as nitrous acid,  $\text{HNO}_2$ ; sulphurous acid,  $\text{H}_2\text{SO}_3$ ; phosphorous acid,  $\text{H}_3\text{PO}_3$ . If there is an acid containing still less oxygen, it is distinguished by the prefix *hypo* (i.e., *lower*) as hypo-nitrous acid,  $\text{HNO}$ ; hypo-sulphurous acid,  $\text{H}_2\text{SO}_2$ ; hypo-phosphorous acid,  $\text{H}_3\text{PO}_2$ . When an acid is discovered containing more oxygen than that to which the termination *ic* has already been given, it is distinguished by the prefix *per* (i.e., *hyper*, above), as chloric acid,  $\text{HClO}_3$ ; per-chloric acid,  $\text{HClO}_4$ . Acids of nitrogen and of sulphur are believed to exist, containing more oxygen than nitric acid and sulphuric acid respectively, and they are distinguished as per-nitric acid and per-sulphuric acid.

All the acids, as already pointed out, contain hydrogen, and part at least of this hydrogen can be expelled by metals. We have already found that the action of acids on metals affords a ready means of preparing this gas (Experiments 39 to 44). Direct experiment shows that from some acids all the hydrogen which they contain can be expelled in this way, whilst in other cases only a small proportion of the total hydrogen is turned out. Stearic acid, for example, which is present in fat and soap, contains thirty-six atoms of hydrogen in its molecule, but only one of them is expelled by metals.

That hydrogen which can be expelled by metals is termed *basic hydrogen*, and acids which contain one atom of basic hydrogen ( $\text{HCl}$ ,  $\text{HBr}$ ,  $\text{HNO}_3$ ) are said to be *monobasic*; acids which contain two atoms of basic hydrogen ( $\text{H}_2\text{CO}_3$ ,  $\text{H}_2\text{SO}_4$ ) are *dibasic*; acids which contain three are *tribasic*; acids which contain four, *tetrabasic*, and so on. The *basicity* of an acid, i.e., the quantity of basic hydrogen which it contains, stands in no relation to the total quantity of hydrogen contained in its molecule. Sulphuric acid contains only two atoms of hydrogen, but is dibasic; phosphoric acid contains three atoms of hydrogen, and is tribasic, but stearic acid ( $\text{C}_{18}\text{H}_{36}\text{O}_2$ ) contains 36 atoms of hydrogen, and yet is only monobasic, because only one out of the thirty-six can be expelled by metals.

EXPERIMENT 65.—Repeat Experiment 39; dry the crystals of zinc sulphate by pressing them between filter paper or clean blotting paper, and put them in a small bottle or corked test-tube.

EXPERIMENT 66.—Repeat Experiment 40, and when the zinc has completely dissolved, filter the solution, evaporate it carefully to complete dryness, and quickly transfer the solid zinc chloride to a well-corked bottle or tube.

EXPERIMENT 67.—Repeat Experiment 41 with 3 grammes of magnesium, and crystallise, and preserve the magnesium sulphate.

EXPERIMENT 68.—Repeat Experiment 42 with 3 grammes of magnesium, evaporate the solution, and preserve the solid magnesium chloride as in Experiment 66.

We have now to ascertain whether zinc sulphate and magnesium sulphate have anything in common with the sulphuric acid from which they were formed, or the magnesium chloride and zinc chloride with hydrochloric acid. In outward appearance the white solid products are very different from both the metals and the acids.

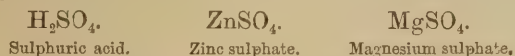
EXPERIMENT 69.—Dissolve small quantities of the zinc and magnesium sulphates and the zinc and magnesium chlorides in separate quantities of water. To a portion of each solution add a few drops of a solution of barium chloride (one part of the salt in ten parts of water), and afterwards some dilute hydrochloric acid: (a) zinc sulphate produces a white precipitate, which does not dissolve on adding the hydrochloric acid; (b) magnesium sulphate gives a white precipitate insoluble in hydrochloric acid; (c) zinc chloride gives no precipitate; (d) magnesium chloride gives no precipitate. Now, in the first place, since



zinc chloride and magnesium chloride give no precipitate, it is clear that the formation of the white precipitate is not due to the zinc or magnesium.

**EXPERIMENT 70.**—To a small quantity of dilute sulphuric acid add barium chloride solution, and afterwards dilute hydrochloric acid; a white precipitate is formed insoluble in hydrochloric acid, and precisely similar in appearance and behaviour to the white precipitate formed by the zinc magnesium sulphates under the same conditions.

We naturally conclude that the sulphuric acid and the two sulphates contain some common constituent which is the cause of the formation of the white precipitate. Analysis shows that this constituent is the group  $\text{SO}_4$ , and that the three compounds have the composition represented by the following formulæ:—



Zinc sulphate is formed from sulphuric acid by the replacement of the hydrogen of the acid by zinc, and magnesium sulphate by the replacement of the hydrogen by magnesium. These compounds are termed *salts* of the sulphuric acid. The white precipitate produced on addition of barium chloride has the composition  $\text{BaSO}_4$ . We may obviously regard it as sulphuric acid in which the hydrogen has been replaced by barium; it is a salt of sulphuric acid, strictly analogous to zinc and magnesium sulphates, and is called *barium sulphate*.

**N.B.**—The formation of a white precipitate with barium chloride solution, insoluble in hydrochloric acid is (with certain limitations which will be explained later) a characteristic test for sulphuric acid or a sulphate.

## Instantaneous Photography

By W. JEROME HARRISON, F.G.S.

### CHAPTER VI.

GELATINE EMULSION RENDERS REALLY RAPID EXPOSURES FOR THE FIRST TIME POSSIBLE.

*The First Emulsion Process.*—The publication of an "emulsion" process, by B. J. Sayce and W. B. Bolton, on 9th September, 1864,\* proved the announcement of a new era in photography. They formed silver bromide in liquid collodion, and then poured this liquid upon glass plates, thereby coating them with a material sensitive to light. During the next ten years the collodion emulsion process was gradually perfected, and the Liverpool Dry Plate Company, with Peter Mawdsley as manager, manufactured dry plates on this principle, commercially, in large quantities, from 1867 to 1877. Their price list for 1870 quotes quarter-plates at 3s. 6d. per dozen, half-plates at 7s. 6d., and whole-plates at 14s. As the film was rather transparent, all these plates were "issued with coloured back to prevent blurring by reflection."

These collodion emulsion plates were not rapid, and we cannot hear of any feats of instantaneous work being done upon them. Of course, with a first-rate light upon the coast, and a lens with large aperture, "instantaneous" pictures were sometimes produced by their aid.

#### THE ADVENT OF GELATINE.

The possibility of gelatine being used with advantage instead of collodion doubtless occurred to many of the early workers in photography. It is mentioned by Le Gray (1850), "E. R., of Tavistock" (1854), Gaudin (1861), Poitevin (1862),

and W. H. Smith (1865). In 1868 W. H. Harrison actually took photographs upon dry-plates coated with a gelatino-bromide of silver emulsion. Thomas Sutton saw the process clear enough in his "mind's eye" in 1871; but he did not reduce his theory to practice.

*The Father of the Gelatino-Bromide Process.*—Dr. R. L. Maddox is usually, and rightly, considered the father of our present system of gelatine dry plates, because he first published\* a workable formula in the autumn of 1871.

*Burgess Sells Gelatine Emulsion in 1873.*—In 1873, J. Burgess advertised for sale bottles of an "emulsion" (without doubt, gelatino-bromide), with which plates were to be coated—"without any washing, or the application of any preservative; thus saving an immense amount of labour and expense"—but he found few customers.

*Kennett puts the First Gelatine Dry Plates on the Market in 1876.*—The first gelatine dry plates (ready coated) were prepared by Mr. R. Kennett, in 1876. These plates were rapid, far too rapid for the photographers who used them, for Kennett complained bitterly that his customers would "over-expose." The Rev. H. J. Palmer wrote† of these Kennett plates—"As regards exposure, it should be borne in mind that Kennett's plates are, with good light, really instantaneous. Nothing can surpass the cloud, wave, and street views taken with this preparation; and for baby's portraits it is simply perfection itself." But the great mass of the photographers of 1876 must have been fearfully conservative. They swore by collodion; declined to take the trouble to master a new process; and the manufacture of the Kennett plates was discontinued.

*The Final Touch—"Lightning" Plates at Last.*—At a meeting of the South London Photographic Society on 7th March, 1878, Mr. Charles Bennett exhibited a number of negatives upon gelatine plates of his own manufacture, which took the photographic world by surprise. The subjects were such as "interior of a room, taken by ordinary gas-light, the exposure being one hour;" and, "boat-scene on river, exposure by drop-shutter, say twentieth of a second," etc. The tyro of 1890 may see nothing to wonder at in this; but twelve years ago it created a sensation.

The agency by which this increased rapidity was obtained was heat. Bennett gently stewed his emulsion of silver bromide in gelatine. Soon Mr. George Mansfield‡ abridged the "stewing" process (which required from two to seven days for proper cooking) to boiling the emulsion for ten minutes, and with equally good results. In the same year the Belgian chemist, Monckhoven, found out that by the addition of ammonia to the emulsion, the boiling of the emulsion could be dispensed with.

*The Gelatino-Bromide Process Perfected.*—Everything since 1879 has been of the nature of elaboration and perfection of details. Every year our dry-plate makers are turning out better and better plates. Not because any discoveries of importance are being made, but because the workpeople are better trained, the buildings and machinery better designed, purer and more suitable chemicals employed; and above all, because experience is the most valuable teacher, and because the firm which makes a bad plate is quickly "eliminated" from the market.

The first plates sold commercially in the new era were brought on the market in 1878, by Peter Mawdsley, of the Liverpool Dry Plate Co., and Messrs. Wratten and Wainwright, of London. Prices were fixed on the standard of "three shillings per dozen for quarter-plates," and at this figure they remained for four or five years.

\* *British Journal of Photography* for 8th Sept., 1871, p. 422.

† *British Journal of Photography* for 10th March, 1876.

‡ Communication to the *Photographic Society of Ireland*, August 1879.

\* See *British Journal of Photography* for that date.



## The Focus Question.

By VALENTINE BLANCHARD.

TEMPERATE discussion can never do harm, and may frequently do much good. There can be no discussion without opposition of opinions. Now, gentle friction rubs off the angles of prejudice and produces polish. Violent friction, on the other hand, produces fire. On entering the arena, therefore, I do not intend willingly to trail an imaginary coat and request someone to be good enough to tread upon it.

The historical portion of the diffusion of focus question should be interesting to the modern amateur, and may therefore be dealt with at some length. Dr. Emerson, who is a comparatively young man, can scarcely be expected to know all that has been done in the past by the early workers in photography, and he is certainly wrong in fixing on Mrs. Cameron as the first exponent of diffusion of focus. Rejlander was before her in the work; in fact, she might with fairness be called his pupil, for she was a great admirer of his artistic productions, and invited him down to Freshwater to help her with his great experience. His description of his visit and of her method of working is still fresh in my mind. At that time the lens she employed was an old French portrait lens of long focus. Most certainly she did not use a rapid rectilinear lens, for the best of all reasons—it was not invented. Rejlander's pictures rarely exceeded whole-plate—occasionally a larger size was employed, but not often, and therefore the diffusion of focus was not so striking as in the larger work of Mrs. Cameron; and in speaking of the out-of-focus character of her work, it is only fair to say that this was due quite as much to the inability of the sitter to keep still during the enormous exposures she found necessary to give with her long-focus lens, and her method of working it, as to any peculiarity in the lens itself. I well remember Rejlander's delight at the improvement he believed he had made in his portrait lens. He was ever seeking to get depth of focus without the employment of a stop; and by the alteration he had made in his lens he thought he had obtained it. He had got an extra tube much longer than the ordinary tube of the lens; or, rather, two tubes, one sliding inside the other, so that he could put the front and back lenses of the portrait combination much further apart. In fact, he considered it a great advantage to be able to alter them at will. Depth of focus in the old portrait combinations was always obtained at the expense of sharpness, and in 1861 the question, "Sharpness versus Depth of Focus" came up several times at the various societies. A. H. Wall read a paper called "Sharpness—what is it?" A little later on a very lively discussion arose between Mr. Shadbolt and Mr. Malone on this subject apropos of a new lens by Ross. Mr. Shadbolt said, "Regarding the quality of so-called depth of focus, the lens possessing it was as bad a lens as could be. The phrase itself was an absurdity. . . It was impossible to have objects in different planes equally sharp, and what was termed depth of focus was simply destroying all focus and making the definition of every part equally bad."

Mr. Malone said the question had to be looked at practically and in relation to the necessities of photography. A lens might give what was called depth of focus, and that depth might arise from the lens being, in a certain sense, a bad one, but nevertheless its results might be admired. He knew a portrait lens of that character, and it gave very soft, pleasant portraits. Doubtless Mr. Ross would condemn it, for there was no absolute or mathematical focus anywhere.

In a leader in the *Photographic News*, in 1861, on this discussion, Wharton Simpson has some pertinent remarks worthy of a place here: "Mr. Malone rightly said that we

must look at the question practically, and in relation to the necessities of photography, and these necessities, nine times out of ten, were pictorial effect. Mr. Shadbolt thinks it true to art, as well as to science, when he states that he requires a lens to approximate to the human eye, which can only have objects in one plane in focus at the same time. But the human eye will, in the fraction of a second, adjust itself to every plane of view before it, and produce on the mind the effect of perceiving the whole at once. The painter who sits down to paint a landscape would never dream of fixing his eye in one focus, and never altering it during the progress of the picture. His object is to get such a picture as the eye sees, as it adjusts itself over the landscape before it. He does not attempt to paint every object with equal perfectness of definition; he does not see every object so, however he may vary the focus of the eye. There is an increasing veil of atmosphere between him and objects at each gradation of distance, which, whilst it does not alter or even blurr forms, prevents them from being 'made out' with the minuteness of foreground objects. . . . But this absence of definition is nowhere of the blurred character which is presented by objects entirely out of focus. There can be no doubt that the exigencies of pictorial art demand the presence of this quality which has been called depth of focus. . . . A landscape with a few objects crisp and well defined, and the rest a mass of indistinctness in which neither form nor texture are indicated, is simply intolerable and worthless. Some depth of definition then is absolutely necessary to pictorial effect. There are several sources from whence this depth of definition may be obtained. It may be due to what is called a bad lens; that is, a lens imperfectly corrected for spherical and chromatic aberrations. If it be thus obtained, it may, by rare accident, be just the desirable ratio for artistic purposes."

Many of the common French lenses had this artistic fault, and while they were condemned by the optician, they were just the right tools for the artistic photographer. I had one of these lenses, which was a marvel in its way. It was a long-focus half-plate French lens, and answered admirably for cabinet pictures. I wished, however, to make some 12 by 10 pictures, and in 1864 tried what the front combination would do alone, and therefore removed the back, and turned the front lens round in its place. I was delighted with the result, and made a series, which I afterwards exhibited at the Photographic Exhibition in 1865. "The Zealot"—a monk—with strong effect of chiaroscuro, was well spoken of, and became the presentation print of the South London Society in 1866. "The Book-Worm" I sold to Messrs. Mawson and Swan to illustrate the then new carbon process. This was before the patent was taken over by the Autotype Company. The length of exposure was, however, a serious drawback, and I suggested to Mr. Dallmeyer that he should try opening the aperture of his triple lens to make it suitable for portraiture. This he consented to do, and the experiment was made upon a 12 by 10 triple lens belonging to a pupil of mine. The concave or dispersing lens in the centre was very much enlarged, and the result was a perfect success. There was no undue sharpness anywhere, but more depth of focus than had ever been obtained by any portrait lens up to that date. For wet-collodion negatives in gloomy weather it was unfortunately slow, and gave place to the patent D series introduced a year or so afterwards. In using my single lens, I had employed a stop to get sufficient defining powers for half-length figures. I tried it on some 5-inch heads and removed the stop altogether; I was so pleased with the results that I exhibited them at the Crystal Palace. Mr. Dallmeyer was so astonished at these pictures



that he was obliged to come and see the lens in operation before he could believe the statement that there was no stop whatever. After examination, he said the result was due to the length of the tube, the orifice becoming practically a stop. He said he saw a way of getting the same amount of softness with a little more defining power, and a little more rapidity at the same time. The result of his experiments was the patent D series with the diffusion arrangement of the back lens. The first results were sent to Mr. H. P. Robinson and myself for experiment, and many well-known pictures were made with this instrument by him.

There may appear a little too much of the capital I about the above remarks, but the object is to show that undue sharpness has always been recognised as a much too common photographic defect by all those who have earnestly aimed to produce artistic results by the aid of photography, and that Rejlander, Robinson, and many others, while they sought to avoid the inartistic results of the optically perfect instrument, always aimed to secure sufficient definition to satisfy the requirements of a comparatively small picture, which, therefore, of necessity would be removed from the beholder only so far as was necessary to take in all its detail.



## Platinum Toning.

By LESLIE SELBY.

At the present time, when the price of platinum is going up, any new process which will tend to the saving of that precious metal will, no doubt, be acceptable to your readers. I venture, therefore, to bring under their notice the following plan of using up a solution of that metal, which, I think, in the majority of cases, if not in all, is absolutely wasted. Of course, those who turn out a large number of prints, do not throw their solutions away, but recover the more expensive ingredients. I am not writing for the trade, however, but simply for amateurs like myself, who print off a few copies now and then, tone them, and then pour the toning bath, if a platinum one, down the sink, to be followed most probably, later on, by the fixing bath. Since reading Mr. Lyonel Clark's book on "Toning with Platinum," I, like many others, have tried it, with more or less success, and in the more successful results have been pleased with the tone. While fixing some Pizzighelli platinum prints one day, it occurred to me that there should be enough platinum in the first acid bath to tone a few silver prints. I therefore took one and placed it in the bath, and left it for some time. On returning to look at it some ten minutes afterwards, I was agreeably surprised to find that it was almost identical in tone with the Pizzighelli, but in the after process of fixing, it turned to a sickly yellow. This, of course, was to be expected, as I did not wash it between the toning and fixing, and consequently sulphur toning set in. Not having any more silver prints by me, I did not follow up this experiment for some time, but lately, finding platinum rather expensive stuff to buy, for the purpose of toning half-a-dozen prints or so at a time, I thought I would go into the question again, and see if, with the help of a few Pizzighelli prints, I could not manage to tone all my silver ones. I therefore took one piece of  $7\frac{1}{2}$  by 5 Pizzighelli paper and printed it under a negative, which, as it happened, was one with hardly any high lights in, so that the amount of waste platinum would probably be small. I then cleared it in a bath of about 3 ozs. of water, to which I added four drops of nitric acid. Hydrochloric acid is recommended in the instructions issued with the paper, but I was out of it at the time. After leaving the print in for five minutes, I took it out and cleared it in two more acid baths in the usual way, as I did not think the

second bath worth keeping. Into the first bath I put six  $7\frac{1}{2}$  by 5 matt-surface silver prints, which quickly changed from a brick red to a brown, and then to a warm black tone. I could not get a platinum black, but with matt-surface paper I have not been able to get a good black with either Lyonel Clark's or Blanchard's process, so that I was quite satisfied with the tone I got. I then put in three 5 by 4 aristotype prints, and of these, the first toned to a good black, the second to a chocolate brown, and the third would not go much beyond a red. Apparently they exhausted the bath. I then washed them all in a bath of ammonia and water, and fixed them in the usual way. When dry, the matt-surface prints were not altogether a success, not so much on account of the tone, but they appeared to be very much wanting in vigour, which I put down to the negative being unsuitable, but the tone of the aristotypes was better than any I have been able to get with a gold toning bath. The matt-surface prints lost a little of the tone in the fixing bath, but the aristotypes, on the contrary, seemed to go on toning for a short time, and dried a still better tone. This, however, I fancy I have noticed with them in the ordinary platinum toning process. Altogether, I was quite satisfied with my experiment, and intend trying it with ordinary albumenised paper, but as I have not much time for this kind of work, I bring it before your readers, so that someone with more time and more chemical knowledge than I possess, may follow it up. One or two hints I might throw out for their assistance. The prints should be washed before toning, unless a plan, recommended, I think, by Mr. Burton, be followed, of putting a little salt in the toning bath. This, he says, does away with the necessity of washing before toning, and also causes more even toning. That I cannot vouch for; aristotypes should, I think, be well washed, as I found that even with salt in the bath, they quickly caused it to become muddy and inert. The ammonia bath, or an alkali bath of some sort should on no account be omitted after toning and before fixing, or yellowing of the prints will certainly take place. The aristotypes can, of course, be finished off with either a glazed or a matt surface at will. I have not tried this process with an old platinotype bath thoroughly at present, but after leaving some prints in for about twenty-four hours without any attention, I found some finished with a good tone, while others refused to tone at all. But as that was more time than I cared to spend over toning a few prints I did not investigate any further, but intend doing so at some future time.



**IRISH INSTANTANEOUS PHOTOGRAPHY.**—A correspondent to the *Glasgow Herald* writes: "Mr. P. O'Brien's idea of photography is on a par with his idea of dignity. To attempt in an interior to take an instantaneous picture with a Kodak is to attempt the impossible. The only result is a waste of 'film' and a display of ignorance."

**PHOTOGRAPHIC CHART OF THE HEAVENS.**—The International Committee, appointed at the Paris Conference to arrange the details connected with the photographic chart of the heavens, will meet at the Paris Observatory on March 31st next. From a recent statement of the President, it appears that nearly the whole of the Committee are expected to attend, even those from South America, the Cape, and Australia. Eight of the thirteen instruments have been constructed in Paris, and have all been tested and found satisfactory; the British instruments are also in position, except one for Australia, which is now on the passage out, and the results obtained with them are quite equal to the French. The Committee will have experience in the working of the instruments, which it is expected will enable them to settle all details necessary to secure perfect uniformity in carrying out the work. Immediately after the meeting work will commence in earnest, and it is hoped that in three or four years the photographic chart of the heavens will be complete.



## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

NOTWITHSTANDING the inclemency of the weather on Thursday evening, November 6th, there was an unusually large muster of members at the Camera Club to hear Mr. Gale read his paper, "Country Rambles with a Camera," and to see his varied lantern-slide illustrations. The meeting was very happy in its Chairman, for Mr. Frank Howard is the father of the old-established Field Club, and has gone through all the photographic changes of thirty years with Mr. Gale with kindred aims and successes.

Having allowed the Secretary to say a word on behalf of the Photographers' Benevolent Association, the Chairman reminded the contentious ones present that they need not expect anything controversial from Mr. Gale. What he looked for was a narrative of experience touching on the artistic and practical side of rambles in the country with a camera. This was what Mr. Gale's address proved to be—a pleasant chat about rural things, by a sympathetic observer of the country people, their dwellings, manners, and customs—the address being interspersed with notes of the way these things ought to appeal to the photographer concerned about artistic treatment. At the outset Mr. Gale adopted the excellent plan of giving the headings of his discourse upon the lantern screen, a special slide having been prepared for the purpose. The whole of the paper was copiously illustrated by the lecturer's own transparencies, the different styles of cottage roofing in various parts of the country being particularly fully shown. After referring to the characteristics of the several districts and counties in which he had found special attraction—Cornish coast villages, the lanes of Surrey, the downs of Sussex, the wattle and dab of Berkshire, the thatch and whitewash of Essex—Mr. Gale urged the necessity of observation on the part of the student of nature. The unobservant were sure to make mistakes. Only experience would teach each one how little the casual eye sees. A sportive motto for them might be "*Animus tuus ego*," which, being interpreted, is *Mind your eye* when abroad under Nature's influence, or subtle beauties would be overlooked. It was necessary to possess this power of seeing, and to embrace promptly every opportunity that offered. The power of memory and mental vision possessed by Turner was instanced, and led Mr. Gale to make reference to "those ideal representations which are the perfection of art"—a remark evidently taken as contentious matter by some present. Here Mr. Gale showed some fine stormy sky effects, extremely natural and artistic for lantern-slide work; and he then went on to exhibit pictures showing cottages with various roof coverings, the tiles of the Weald of Sussex where clay was abundant, examples of upper stories tile-faced and overhanging to protect the softer absorbent brick of the lower portions, tiles and thatch mixed, the beautiful Horsham slabs, and roofs made from spoke-shavings. Next followed illustrations of the river, the pond, the common, windmills, watermills, still life, live life, ploughing, and hay and wheat harvest. These were accompanied by an occasional poetic flight on the part of the lecturer (the discourse, indeed, bristled with poesy), and several laments over the decadence of rustic simplicity. The smock frock had disappeared, old Kentish and Sussex ploughs were exchanged for new Howards, the game laws had put away the sickle, School Boards and new social ideas were to the fore, and rural manners were no more.

On the subject of "figures in landscape," Mr. Gale said there were some few landscapes where figures had no right to be, but most landscapes might be improved by the introduction of figures. Would the presence of the wrecker searching for prizes on the lonely shore detract from the desolateness of the scene? The poet Gray, in his picture of "the solemn stillness" of evening, introduced three distinct sounds—the hum of the beetle's flight, the tinklings of the distant fold, and the hoot of the owl. In the same way figures might add to or intensify such character in a subject. The Matterhorn might not lose in majesty by a group of mountaineers roped together at the edge of a crevasse being represented in the foreground. On the other hand, a representation of the Bank of England and surroundings without figures and traffic would be felt to be unnatural and absurd. The figures must be placed naturally, and there must be a motive for placing them.

Amongst the slides at this point was a portrait study of a shrivelled and weather-beaten rustic of the female persuasion,

which prompted an enquiry from the audience as to whether that was one of the opportunities the artist had promptly embraced.

In respect of lighting, Mr. Gale held that no rules could be laid down. Shadows across the picture were valuable to break other lines, shadows towards the operator were the most effective, whilst scenes given with the shadows away from the spectator were the least effective, being flat and wanting in chiaroscuro.

In conclusion, it was urged that the student should do something more than run about the world for big views of great places. He had to observe changes of atmosphere, learn to translate from colours into tone, and master the science of development as applied to his purpose. He should start out with a definite object, know when to reserve his fire, and conscientiously do all his own work. Those who sent their negatives to be developed, put out their printing, and then exhibited the results as their own were as meritorious as the mendicant who sat by chalk drawings on the pavement, craving that a poor man's genius should be rewarded, whilst he was really only a caretaker, and the real "artist" had been his morning rounds, and was for the rest of the day enjoying "beer and skittles."

The Chairman said that this might well be called a "One-man Lantern Exhibition." They had seen a pick of the product of many years' work in an hour and a quarter. They had seen how the use of the camera might lead its worker to observation and education. He thought the charm of a photograph was much enhanced by a good poetical description.

Mr. Hussey referred to the admirable manner in which Mr. Gale's skies were printed in. Mr. Humphery had been with Mr. Gale on a country ramble, had seen how well he knew the country and rural and pastoral things, how beautifully he sang to the sheep, and how they smiled upon him and did as he wished them. Mr. Wilkinson pointed out that sympathy with a subject, whether models or landscape, was the great essential.

Mr. Davison said Mr. Gale had somewhat carefully covered himself from attacks by moderate and qualified statements, but there were several points upon which some of those present would be at variance with him. What did he mean by "ideal representations being the perfection of art"? Had anyone ever succeeded in giving a glory to a sunset or a storm scene greater than that which frequently appealed to every observer? On the point of figures in landscape the artistic quality did not depend at all upon whether figures were present in or absent from pictures. Each subject of course required its own treatment. Referring to the instance from Gray's *Elegy* quoted by Mr. Gale, the poet had not introduced certain sounds on any abstract principle that this intensified stillness, but simply because those were natural sounds associated in our minds with the restful quiet of a country eventide. They were characteristic of the subject. Mr. Davison further took exception on some points to Mr. Gale's statements as to principles of lighting, and the desirability of starting out with what were called definite objects. Mr. Maskell questioned the capability of photography to render the values of certain subjects, such as gorse in bloom or a cornfield, as well as other black-and-white methods.

Mr. Gale, in reply, said that he had from want of time left out a passage in his paper referring to this very matter. He had on one occasion obtained a "gorse" photograph where the yellow blossom was darker than the green bush. He thought that the values of corn in the green blade were impossible, but when ripening it came quite in its true values. He expected Mr. Davison to make objections because he did not like anything sharp. Perhaps Mr. Davison would let them see some of his slides. [Mr. Davison—I did not take any exception at all to your focussing; I referred to the general falsity of tone in lantern-slides, and I thought I pointed to one or two good and bad examples.] Well, Mr. Davison did not consider lantern-slides a proper means of artistic representation. He might say in conclusion that he had tried to work up to new ideas, but was sorry that he had not been successful in getting some new kind of work ready in time for the occasion.

A hearty vote of thanks was accorded Mr. Gale for the lecture.

On Thursday, November 20th, Mr. Pringle will read a paper entitled "Some Old Processes of Making Lantern-slides."

—♦♦♦♦♦—  
 LANTERN SOCIETY. — The annual general meeting of this society was held on the 3rd inst. A selection of about seventy slides belonging to the society's loan collection was afterwards shown on the screen.



## Notes from the Liverpool Centre.

(By our District Editor.)

THERE was, after all, no practical demonstration at the Liverpool Rooms last Wednesday, none of the gentlemen engaged in the consecutive demonstrations arranged being available. The series will, however, be resumed next week. Latterly, the coffee meetings of the Liverpool Society have been excellently attended. At the last meeting, a few days ago, upwards of thirty gentlemen were present; a most sociable and instructive hour or two being the result.

Unnecessary to say our members are delighted that Mr. Arnold J. Cleaver has secured the AMATEUR PHOTOGRAPHER prize Silver Medal in the No. 18 "Monthly Competition." Mr. Cleaver has received felicities all round. "Beaver Pool, Bettws-y-Coed," the subject of Mr. Cleaver's picture, is a favourite spot of those workers in photography who have jaunted through Wales.

At the Walton Society's ordinary monthly meeting last week a new member was added. Subsequently the chief item of business was an interesting practical demonstration on "Silver Printing," including sensitising and toning of albumen papers. Several members of the society contributed to the demonstration. Mr. John Kennedy, the Secretary, informs me that the outlook for the attendance and work during the winter months is very encouraging.

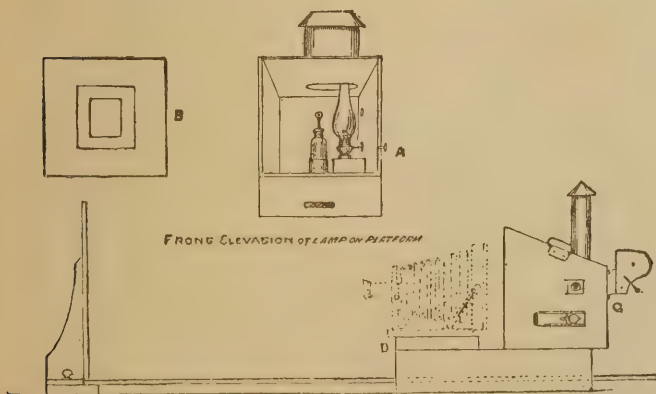
It would appear that the late show promoted by the Bury Photographic and Arts Club, a notice of which appeared in the AMATEUR PHOTOGRAPHER last week, is likely to have good results. The taste and ability shown in the pictures in the photographic section of the exhibition argue well for the members, who have undoubted talent among them. I have not yet heard whether the society have come out with a balance on the show.

The chemical photographic lectures by Dr. Kohn at the Liverpool University College, and the new venture at the Liverpool Y.M.C.A., are being well patronised. At Formby, Wallasey, Lancaster, and other places the winter session is expected to be prolific.

## Apparatus.

### ENLARGING LANTERN AND STAND.

LAST week we were invited by Mr. J. C. Shenstone, of Colchester, to meet him at the works of Messrs. Wrench and Co., 50, Gray's Inn Road, London, W.C., to inspect his recently invented lantern and stand, illustrated below—



With this apparatus enlargements can be made from any negative up to whole-plate. The special feature is the construction of the lamp, in which a duplex oil-lamp is used for focussing with, the negative being sharply focussed upon the board on which the bromide paper is fixed; the oil-lamp is then drawn towards the operator, and by the same movement the magnesium lamp is centered in exactly the same position as was the oil lamp when the picture was focussed. With this lantern no condenser is required, the ordinary camera is brought up close to the front of the lantern, as shown, without the camera back and the carrier, the nega-

tive placed in the lantern before exposure, and a piece of opal glass introduced between the negative and the lamp, in order to diffuse the intense light given by the magnesium lamp, and to prevent any shadow. The magnesium lamp is of the ordinary kind, the ribbon being fed into the flame given by a spirit lamp. The board upon which the exposures are made is attached to a bar measured off in inches, and travelling free through the block upon which rest the camera and lamp, as shown. This permits of approximate focussing, and by the ordinary rack and pinion of the camera exact focus is ensured.

The specimens we saw left nothing to be desired, and we are sure many amateurs will be pleased to know that so simple an apparatus is in the market. Either Mr. Shenstone or Messrs. Wrench and Co. will gladly give further particulars, forward price lists, etc.

### POWELL'S COMPRESSED HYDROKINONE DEVELOPERS.

MR. T. H. POWELL, of 116, Denmark Hill, S.E., has sent us samples of Compressed Hydrokinone Developer, which is put up in two bottles. We have not had time to personally test the action of the developers, but can only compliment Mr. Powell upon the extremely portable form in which they are made up. Of the action of the developer, Mr. Powell says, "It should always be borne in mind that hydrokinone must be kept upon the plate fully double the length of time required for pyro (for the latter the average is about 2½ minutes, for the former fully five minutes). The image therefore will come up slowly; its appearance, however, may be hastened by pouring the developer back into the measure and again on the plate. When the details begin to appear, the action is more rapid than in the case of pyro; over-development therefore must be guarded against." Sample bottles, neatly packed in boxes, may be had for 1s. 6d. To those who travel we heartily commend a trial of Mr. Powell's compressed developers.

HOW SUREFOOT WON THE TWO THOUSAND.—"Instantaneous photography is apt to shatter all one's theories about the 'poetry of motion.' In the AMATEUR PHOTOGRAPHER this week is a reproduction of an instantaneous photograph taken of 'Surefoot Winning the Two Thousand Guineas.' The picture, though inartistic, is, of course, bound to be metrically correct, but it is a pity it was not published soon after the race, as I am sure it would have saved their money for a lot of enthusiastic backers of the Derby favourite. It is to be hoped, however, that steps can be taken to prevent this indiscriminate use of the camera. O'Brien got seven days for simply photographing a witness in court, so what punishment can be sufficient for the man who would rob us of our illusions regarding the symmetry of a galloping thoroughbred?"—Hawk.

PHOTOGRAPHIC EXHIBITION, EDINBURGH.—"It is more than twelve years since the last exhibition of photography was held in Edinburgh, and the great advance which has been made during that period in all branches of the art fully warrants the Edinburgh Photographic Society in promoting another undertaking of the same kind. The present international exhibition opens on the 14th inst. in the galleries of the Royal Scottish Academy, and will not be closed till 7th January next. All along, the Committee have met with the greatest encouragement, and applications for space have been so numerous that a great number of the exhibits—merely for want of space—will have to be rejected. One feature will consist in the illustration of the processes connected with the art in their various stages, many unique specimens of the earlier processes and apparatus being shown. There are altogether twenty-one classes, for each of which one silver and one bronze medal will be given for competition. In addition, a gold medal is to be offered for the picture which possesses the highest degree of merit, irrespective of size or subject. A scheme of lectures has been arranged for, and thoroughly qualified gentlemen have been engaged to explain and illustrate the different processes in connection with photography. One of these lectures is to be given in each week during the continuance of the Exhibition."—*Scottish Leader*.



## Science Notes.

THE October number of that charming American-English magazine, *St. Nicholas*, contains a capital article, entitled "Through a Detective Camera," by Mr. Alex. Black, which is extremely well illustrated.

A. Lainer finds that the addition of a small quantity of an alcoholic solution of iodine to the ferrous oxalate developer reduces the contrasts in the resulting negative without affecting the amount of detail. Iodine solution added to a mixed pyro developer has little effect, unless added in much larger quantity than in the case of the ferrous oxalate; it then produces a very similar result. A very dilute solution of potassium iodide has a similar effect.

If iodine solution be added to a solution of carbonate of soda, it acts as a powerful restrainer, when made into a developer, by mixing with pyro.

Workers with the lantern may like to try a pretty little experiment illustrating cohesion. Rub a little vaseline over a cover-glass, and place a second glass in contact with the oiled surface, so that all the air between the two glasses is excluded. Put two rubber bands round the ends of the squares of glass so as to hold them together. Place the blank slide so formed in the lantern, and introduce the point of a penknife between the glasses, so as to separate them a little. Tree-line markings, resembling ferns or club-masses, will immediately be seen on the screen, which grow as the glass plates are separated, but disappear when the penknife is withdrawn. Pretty colour effects can be got by mixing a little aniline dye with the vaseline.

*Nature*, for November 6th, contains a lengthy review by Professor Meldola of the new edition (vol. i.) of Dr. H. W. Vogel's "Handbuch der Photographie," published by Oppenheim, of Berlin.

Much interest attaches to a new gas recently discovered by Professor Curtius, of Berlin, and which he has named hydrazoic acid. It is a compound of nitrogen and hydrogen,  $N_3H$ . Its solution in water is very explosive, and several of its compounds explode when exposed to light. It is able to dissolve gold.

Those who wish to exhibit lantern-slides on a small scale, in an ordinary room, will find that a piece of ground-glass, 2 ft. or 2 ft. 6 in. square, rubbed over with mineral oil, and mounted in a wooden frame like a slate, with feet so that it can stand on a table, makes a most admirable screen on which to display the pictures. They can be seen equally well from either side.

In the early days of photography—in 1853, thirty-seven years ago—when the founders of the Photographic Society of London (now of Great Britain) met to arrange for the establishment of the first society of the kind in these islands, it was urged by several workers that the offer of the Society of Arts to establish a special section for photography should be accepted. That offer was, however, declined; but the Society of Arts has nevertheless continually aided in the progress of photography, and never more so than under its present able Secretary (himself a distinguished photographer), Sir Trueman Wood. Scanning the programme for the coming session, we note several items which ought to induce every dweller in town to endeavour to gain admittance on the stated evenings to the handsome meeting-rooms in John Street, Adelphi. Among these specially interesting items we note: December 17th, Mr. Geo. Davison, on "Impressionism in Photography;" and three lectures by Professor Meldola on March 9th, 16th, and 23rd, on "Photographic Chemistry." Of scarcely less interest will be Mr. F. Bailey's paper on "Electric Lighting in London" (Dec. 10th), and "Illustrated Journalism," by Carmichael Thomas; while Messrs. Green, Cross, and Bevan will discourse on "Photography in Aniline Colours," including, of course, their new "Diazotype" process. The dates for these last two papers are not yet fixed.

The latest news from "Sister Rose Gertrude" is to the effect that she is about to leave Hawaii, and is to travel in the South Sea Isles with the object (*inter alia*) of securing photographs of lepers; in order, it may be presumed, to bring home tangible evidence of the dreadful state of things which prevails in some of those "earthly paradises." Verily the uses of the camera are manifold!

F. G. S.

## Exhibitions.

### WOLVERHAMPTON AM: PHOT: SOC: ANNUAL EXHIBITION.

THE second annual exhibition in connection with the Wolverhampton Amateur Photographic Society was opened on Monday. The exhibits were both numerous and of excellent quality, while the competition for the certificates awarded for high-class work was in some sections exceptionally keen. The number of photographs hung was 454, but to these must be added some 96 lantern-slides, which raise the total to 550—a great advance on last year. There were, in all, fifteen classes, embracing all departments of the photographic art, and it is satisfactory to state that the majority of these were really well filled, the exhibitors for the most part being members of the local society. Mr. J. Gale (Wolverhampton) was successful in gaining the Society's award of merit, his pictures being not only numerous, but exceedingly well executed, his choice of subjects leaving nothing to be desired. Mr. A. H. Rudge, the contributor of three pretty quarter-plate river scenes, was second. The exhibits in this section number over 90, and well repay inspection. Class 2 the committee reserved for landscape, with figures, Mr. E. H. Jacques, of the Birmingham Photographic Society, taking the first certificate with a series of platinotype prints of the Cottage Homes, near Stratford-on-Avon. In this class second honours were not awarded, a similar course being adopted in Class 3 (seascape), where the only certificate given fell to Mr. S. W. Lees. Class 4, architecture (exterior), was extensively filled, Mr. J. Gale being deservedly awarded the first certificate for a fine view of Lilleshall Abbey. Mr. T. Ironmonger (President of the Wolverhampton Society) took the second certificate with six half-plate views on aristotype paper of Haddon Hall etc. Mr. Gale was again successful, in Class 5, for architecture, interior, with his picture "Gueston Hall." Mr. E. A. White (Wolverhampton) gained second position in this section with three prints of Haddon Hall. Mr. J. Oakshot, who contributed an interior view of Norwich Cathedral, comes close behind. In Class 6, confined to portraiture (amateurs only), exhibits were somewhat few in number, and as a result only one certificate was awarded, this falling to Mr. E. H. Jacques, for "A Lady" and "A Country Girl." In the succeeding section, also for portraiture, the professionals make a still more moderate show. Competition appears to be entirely absent, and consequently no awards were made by the judges, the latter, however, recommending the granting of a special certificate to Mr. T. M. Laws, Wolverhampton, for a handsome picture, entitled "My Favourite Flower." In Class 8 (Genre) Mr. E. H. Jacques claims the only certificate given his subject being "Preparing for Dinner." In Class 9 the judges could not see their way to make any awards. In the succeeding class (Amateur Enlargements) the superiority of Mr. J. Gale's work was again demonstrated, his "Hobball Grange" taking first honours. Mr. J. W. Evans was a good second with a hoar frost scene, this class of work being remarkably well represented in the section under notice. Each of the pictures mentioned, it may be stated, was enlarged from quarter-plate negatives. Class 11 (Professional Enlargements) was but poorly filled, but the judges recommended that a certificate be given to Mr. W. D. Welford, for a fine enlargement of "Harley Bridge." Detective camera work was well represented in Class 12, Mr. T. E. Leigh gaining the first certificate with three picturesque scenes in the neighbourhood of Llangollen, Mr. E. A. White being awarded second honours. In the remaining classes mention may be made of the fact that the competition with lantern slides was exceptionally keen, the struggle for honours being very keen between Mr. E. H. Jacques and Mr. J. Wright, the former's work ultimately gaining him first place. In "Subjects not Classified," Mr. J. Gale and Mr. J. Oakshot gained first and second certificate respectively among amateurs, and Mr. J. P. Gibson first honours among professionals. Mr. T. Ironmonger, Mr. J. B. Thorneycroft, Mr. G. Phoenix, Mr. E. A. White, and Mr. Stokes also contribute specimens of their ability, of an ancient mummy, now in the possession of Colonel Gough. The photographs were taken by Mr. Ironmonger for the Mummy Department of the British Museum. The exhibition, it may be stated, remains open during the present week, and no effort has been spared to add to its attractions. Much credit is due to the Hon. Secretary, Mr. J. W. Evans, who has spared no endeavour to make it complete in every sense of the word.—*Abstracted from "Midland Evening News."*



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BARNSTAPLE AND NORTH DEVON PHOT. SOC.**—The ordinary monthly meeting of this society was held on the 5th inst., Mr. W. Ridd, Vice-President, in the chair. The preliminary business being got through, the Chairman called on Mr. King, Hon. Secretary, to read his paper on contact printing and enlarging on bromide paper. Great interest was shown by those present in the subject, it being new to several. At the close of his paper the reader gave a demonstration on the process of exposing and developing, an enlargement also being made. It was arranged to hold a special meeting on November 24th, to exhibit some lantern slides, the loan of which had been kindly promised by the Editor of the AMATEUR PHOTOGRAPHER.

**BLACKBURN AND DISTRICT PHOT. SOC.**—On the 8th inst., at the general meeting of the above society, presided over by the newly-elected President, Major Baron, Mr. R. P. Gregson gave a demonstration on printing by contract on Alpha paper, which was much appreciated. A number of slides made by members of the society were shown on the screen by the aid of a lime-light lantern. Several new members have joined the society.

**BRECHIN PHOT. ASSOC.**—This Association gave a public exhibition of lantern slides in the City Hall, on the 4th inst. The hall was crowded in every part. Mr. Wm. Shaw Adamson, the President, occupied the chair. The slides shown for exhibition were the set entitled "Greenland's Icy Mountains," taken during a voyage in a Dundee whaler. Mr. A. R. McLean Murray, High School, read the descriptive lecture. The second part of the entertainment consisted of the set "Round the Farm Yard," and over 100 slides contributed by members to a competition which takes place this week. The Association's slides were arranged to represent a tour round Brechin, up one side of Glenesk and down the other to Marykirk and Montrose, Duns, Arbroath, Dundee, St. Andrews and Edinburgh, north to Dunblane, Perth, Killiecrankie, Speyside, Cullen, and Aberdeenshire. Admission was by free ticket, with a collection at the door, which quite met the expenses. The Association held a competition on Saturday, 8th inst., for five medals presented by the President, William Shaw Adamson, jun., of Careston. There were a large number of entries in every class, more particularly in lantern-slides, about 150 of these being entered. The prize-list is as follows:—Landscape, 1st, "Loch Eck," Bailie Lawrence; instantaneous, 1st, "The River Eck," Bailie Lawrence; portraits, 1st, "My 'Cello and I," Dr. Anderson; enlargements, 1st, "Bust of a Gentleman," Dr. Anderson; lantern-slides, 1st, "Farnell Church," John Denholm. The collection of pictures was open to the public the same evening in the Mechanics' Institute, and was visited during the day and evening by large numbers.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—On Thursday evening, the 6th, an audience of about 160 assembled to hear Mr. A. R. Dresser on his "Tour in Brittany." The chair was occupied by Dr. Reynolds, the Vice-President of the club. A selection of about 150 slides were passed through the lantern, illustrating the lecture; after which another 50 were shown, comprising instantaneous studies of animals, breaking waves, etc., etc. The members are to be congratulated on having as President so successful a worker as Mr. Dresser.

**BURNLEY PHOT. SOC.**—At an ordinary monthly meeting held on the 29th ult., Mr. Butterworth in the chair, Dr. Brumwell gave a paper (with illustrations) on "My Photographic Holiday." The Doctor and Mrs. Butterworth paid a visit, last spring, to Penshurst, in Kent, for the purpose of taking photographs of the magnificent mansions of Lydney, for which this sweetly sylvan parish is renowned. Favoured with splendid weather, the tourists approached Penshurst through Southborough, overlooking the valley of the Medway, and commanding a most magnificent prospect of a greater portion of Mid-Kent. He urged members who desired a bright, quiet summer's holiday to take their cameras into that district and they would be amply repaid.

**CAMBRIDGE CAMERA CLUB.**—A very interesting meeting of this club took place on Tuesday evening, at which photographic lantern slides were exhibited. The slides were all produced from negatives taken by amateurs. The Editor of the AMATEUR

PHOTOGRAPHER again kindly lent some good slides. Mr. C. S. Roe sent views taken in the Black Forest. Messrs. G. H. Potts and F. H. Sanderson also sent promising work. The collection lent by Mr. E. H. Griffiths was very much admired. It consisted of views of the Alhambra, and the ancient fortress and castellated palace of the Moorish kings of Granada. Mr. H. Hayles also contributed some slides taken with care and judgment. Mr. G. H. Potts manipulated the lime-light lantern.

**CROYDON CAMERA CLUB.**—The ordinary meeting was held on the 10th inst., the President, Mr. H. Maclean, F.G.S., in the chair. The election of a new member was confirmed. Mr. C. E. Whittaker showed and explained his primitive but, in his hands, efficient daylight enlarging apparatus, and exhibited very meritorious enlargements produced with it. Mr. A. E. Isaacs followed by demonstrating the development of enlargements. The ferrous oxalate developer was used, and the beneficial results of "local" development illustrated with great effect. The enlargements, 12 by 10, operated on were on Fry's and Eastman's papers, and proved to be very satisfactory exemplars. Hume's cantilever enlarging apparatus was shown, and was the object of much careful attention. So pleased were the members with it, that it was proposed to purchase it for the club; but the matter was eventually referred to the council, in order that they should consider ways and means, and report thereon at next meeting. A large number of enlargements were shown by Messrs. Whittaker, Isaacs, Plummer, the Fry Manufacturing Company, and others, to whom, and Mr. Hume, the thanks of the society were unanimously voted. The next meeting will be on Monday, November 24th; subject, "Printing Processes." Mr. G. R. White will explain and show variations in bromide contact printing. The Celerotype process will also be explained by a representative from the makers.

**DARLINGTON PHOT. SOC.**—The annual meeting of the society was held on the 10th inst. A number of lantern slides were thrown on the screen. The following officers were elected for the year:—President, Mr. H. W. Hollis; Vice-President, Mr. E. Ensor; Treasurer, Mr. P. J. Cooper; Hon. Secretary, Mr. P. W. Forster; Council, Messrs. Howlett, Davis, Valentine, and Luck.

**DUNDEE AND EAST OF SCOTLAND PHOT. ASSOC.**—The general meeting was held on the 6th inst. Mr. Peter Feathers gave a paper on "Light and Colour." The paper was illustrated throughout by a number of diagrams and experiments, which were successfully performed. Mr. W. E. Boxer exhibited a printing frame which he had designed for making lantern slides from quarter-plates. The front of the frame has an opening of three and one-eighth inches square. The negative, when placed in the frame, could be moved longitudinally till the part desired was opposite the aperture. The back consists of three flaps, two narrow and faced with rubber; these are at either side of the opening, and when shut down keep the negative in position, and are secured by a turn-botton, leaving a space between them of three and a quarter inches for the sensitive plate, which is screened from light by the third flap.

**EAST SOUTHEAST PHOT. SOC.**—The opening meeting of this new society took place on the 4th inst., when the President (Mr. J. Cleminson) delivered an address on the advantages of such a society in the district. There were twenty members present. It was decided, at the next ordinary meeting of the members, Monday, November 17th, to have a discussion on the camera.

**EDINBURGH PHOT. SOC.**—The thirty-first annual meeting of this Society was held on the 5th inst., the President, Mr. H. J. Blanc, in the chair. After the adoption of the report, the following were elected office-bearers:—President, Mr. H. J. Blanc; Vice-Presidents, Dr. Drinkwater, Mr. W. T. Bashford; Treasurer, Mr. James McGlashan; Curator, Mr. Hugh Brebner; and Secretary, Mr. T. Barclay. The following after ballot were elected members:—Messrs. J. Watson, W. Adamson, R. M'Nab, W. C. Clutterbuck, T. W. Scott, Dr. J. Cockburn, Messrs. D. R. Rose, W. Lees, S. J. Lessels, E. J. Craigie, A. H. Craigie, Major H. J. Neaves, J. L. Forrest, George Cleland. The respective sections of the forthcoming exhibition have been well advanced; the schemes of advertising, the arrangements for opening, and the musical arrangements, and the series of weekly lectures, have been mostly adjusted; and in addition, correspondence with likely exhibitors of interesting and instructive material has resulted in very favourable responses to the committee's appeal. The guarantee fund is quite up to expectation, amounting at present to upwards of £300.



**ENFIELD CAMERA CLUB.**—The ordinary meeting was held on the 5th inst., Mr. D. G. Pinkney (President) in the chair. The attraction of the evening was an inspection of the "Travelling Studentship" prints, kindly lent by the Editor of the *AMATEUR PHOTOGRAPHER*, many of which were much appreciated. Dr. F. Cresswell and Mr. H. F. Knight were elected members of the Committee.

**GREAT YARMOUTH AND EASTERN COUNTIES' PHOT. SOC.**—The monthly meeting was held on the 4th inst. The President (Mr. H. D. Arnott) gave an address upon "Elementary Photography," more especially dealing with the working for beginners. There was a good attendance. Several new members were proposed and elected, and it was arranged that at the next monthly meeting, to be held on the 2nd of December, each member should be asked to bring not less than three lantern-slides of any landscape or seascape in the counties of Norfolk and Suffolk, the whole of the work connected with the making of the slide and negative to be the exclusive work of the exhibitor. It is proposed that a short description of each should be given, and that this will form the nucleus of a set of lantern-slides for the society's use.

**HOLBORN CAMERA CLUB.**—The usual meeting was held on the 7th inst., Mr. T. O. Dear (Vice-President) in the chair. Mr. S. A. Lang and Mr. A. J. Golding having been proposed as new members, Mr. E. Clifton gave a short lecture on "Old Dry Plate Processes." He said at the present time, when dry plates had almost superseded the wet-collodion process, it might be interesting to glance back on some of the early photographic processes which permitted the plates to be prepared a few hours before use, and exposed in a dry state. He then traced the history of these dry plates from Niepce's discovery in 1813 up to the present time. He mentioned that there was a loan collection of historical photographic apparatus at the South Kensington Museum, which had been gathered together for the Inventions Exhibition, and afterwards placed in the Museum.

**HULL AM. PHOT. SOC.**—The opening meeting of the present session of this society was held on the 30th ult., when Mr. E. W. Howlett, the President, delivered an address upon "Isochromatic Plates." During the season's course every Thursday evening will be devoted to a meeting, some of which are set apart as "club nights" for lantern-slide making, bromide printing, and enlarging. Papers will also be read by various gentlemen of authority upon photographic matters. Since the society has become possessed of suitable rooms for the purpose of lectures, developing, and lantern exhibitions, a great impetus has been given to the study of photography, and some very good samples of amateur work are now on view, many of them being well-known local views. Some of the specimens are of more than ordinary value, as the "march of improvement" has caused the subjects to be removed in order to make room for further work for the camera. The society has made great progress latterly, the membership having been raised from 40 to 100, and it is hoped that the number may soon be doubled. Anyone desirous of joining the society should communicate with the Hon. Secretary, Mr. A. N. Jameson, at the club rooms, Gough Chambers, Savile Street.

**LEWES PHOT. SOC.**—The ordinary meeting was held on the 4th inst., the President in the chair. Mr. D. E. Caush read a very interesting and instructive paper on "Micro-Photography," which was listened to with great interest. He showed, by means of a microscope and a quarter-plate camera, the arrangement he made use of in working, and which could be carried out at a very slight expense. Mr. E. J. Bedford, Hon. Sec., will read a paper on "Development with Eikonogen, with Demonstration," at the next meeting to be held on December 2nd.

**LEEDS PHOT. SOC.**—On the 6th inst. the members held their annual exhibition of lantern-slides. About 230 slides were exhibited, consisting of scenery in Yorkshire—on the Wharfe, Ure, Swale, and Tees, Bolton, Rievaulx, and Whitby Abbeys. The views of scenery further away from home were instantaneous marine pictures from the Isle of Man and other places. The Lake district was well represented, and the castles of Kenilworth, Raglan, Warwick, Tintern Abbey, and other similar places had received careful attention by some of the exhibitors, whilst some fine pictures of Continental and Norwegian scenery were exhibited. The President of the Society (Mr. T. W. Thornton), in a few opening remarks, convinced the assembly that the Society had made much progress during the year. It had secured a lecture hall, replete with convenience for experiments and general work, and the public exhibitions of the society had been

so successful that further efforts of a like character had been invited. Mr. C. H. Bothamley, of the Yorkshire College (Vice-President of the Society), announced the titles of the various slides as they appeared on the screen, whilst the lantern was under the charge of Mr. A. A. Pearson and Mr. S. A. Warburton, the Hon. Secretary of the society. The intervals were filled up by a selection of music performed by the Leeds Private Orchestral Society, Mr. Staniland Hall conducting. Slides were shown during the evening by Messrs. H. P. Atkinson, Godfrey Bingley, C. H. Bothamley, H. Denison, W. Denham, Dr. Jacob, A. A. Pearson, G. H. Rodwell, T. W. Thornton, S. A. Warburton, W. Wright, D. Waddington, E. H. Whitaker, and T. H. Walker.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—An ordinary meeting was held on the 7th inst. (Mr. Thos. Child in the chair), when Mr. S. J. Castle read a very able paper, "Views Through Normandy," illustrated by a large number of his noted lantern slides. The paper, which was both poetical and historical, was listened to with great interest. The next meeting takes place November 21st, at 8 o'clock, when Mr. R. W. Janes, M.I.M.E., A.M.I.C.E., will give a demonstration on "Enlargements."

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES PHOT. SOC.**—The next meeting of the above association will be held in the Mosley Street Café, Newcastle, on Tuesday, the 18th inst., at 7.30 p.m.; "Demonstration upon the Platinotype Printing Process," by Messrs. M. Auty and J. Pike.

**NOTTS AM. PHOT. ASSOC.**—The hundredth ordinary meeting of this association was held on the 5th inst. There was a large attendance of members and friends, this being the first lantern night of the season. Messrs. Zalazinski and Marsden were nominated for membership. The Chairman, in introducing the lecturer, referred briefly to his subject, "Hand-Camera Work," remarking upon the important position the hand or detective camera had attained in the short time it had been before the public. Considering the portability and the ease of manipulation, he thought that for pleasant reminiscences of journeys their adaptability would be universally acknowledged. The lecturer, Mr. Walter D. Welford, said that hand-camera work had received from him a large proportion of attention. He had tried its adaptability upon every subject, including street views, incidents, characters, marine studies, wave catching, animal studies, athletic, country scenes, landscapes, Newcastle and Torquay trips, the fair, the fete, genre studies. The lecture was illustrated by 150 views, shown by means of an oxy-hydrogen lantern.

**OXFORD PHOT. SOC.**—November 4th, an exhibition of fifty lantern slides, kindly lent by the Editor of the *AMATEUR PHOTOGRAPHER*, was made. Two sets, the Forth Bridge and the Alhambra Palace, Spain, were shown by the President; also some slides by some of the members. Five slides by Mr. G. W. Norton were of particular interest, representing the part of the western coast of Ireland lately visited by Mr. Balfour. Twenty-five members and about eighty visitors were present; the number would have been greater had the weather been favourable. Mr. H. M. Smith (Eastman Company) will give a demonstration on Friday, November 21st, in the Wesleyan Lecture Room, New Inn Hall Street. Mr. A. F. Stanley Kent, M.A., Magdalen College, and Mr. J. R. Benson were elected members.

**PHOT. BENEV. ASSOC.**—On the 7th inst., the Photographic Exhibition at Pall Mall was allowed by the Council of the Photographic Society of Great Britain to be open for the benefit of the Photographers' Benevolent Association. At a quarter to nine an admirable selection of slides was shown on the screen by means of the optical lantern, the contributors being Messrs. H. D. Atkinson, — Carpenter, F. P. Cembrano, W. Davey, W. Farrington, T. E. Freshwater, H. M. Hastings, — Liddle, Poulton and Sons (J. S. Rolfe), J. B. B. Wellington, and S. B. Wollaston. Mr. W. Bedford, Chairman of the Association, said that during the past year more calls had been made on the funds of the Association than in any previous year of its existence, more than £100 having been granted in relief. It was to be regretted, however, that the institution was not more widely supported by those who at some future time might be in such a position that they might be glad to avail themselves of its assistance. The minimum subscription was fixed at 2s. 6d. per annum, so that the humblest might subscribe without taxing his resources. The Hon. Secretary, Mr. H. J. Beasley, 65, Chancery Lane, E.C., advises us that all persons connected with photography are eligible to subscribe, and, in time of need, to receive assistance from the Photographers' Benevolent Association.

**SHEFFIELD PHOT. SOC.**—The ordinary monthly meeting of



the above Society was held on the 4th inst., Mr. R. J. Shields in the chair, and after the usual business of the meeting, and the election of two new members, the judges' award was announced for the annual competition, when Mr. T. H. Roberts was awarded the medal for the best six pictures, and also the gold medal for the best single picture was awarded to the same gentleman for a splendid view of Filey Beach. After which Messrs. Beck and Charlesworth gave the first of a proposed series of "two-man" lantern-slide exhibitions, which was greatly appreciated by the members present. A vote of thanks, proposed by Mr. Crowder and seconded by Mr. B. Nowill, terminated a very successful evening.

**SOUTHSEA AM: PHOT: SOC:—**At an ordinary meeting held on the 5th inst., the President, Capt. T. Lamb, in the chair, Mr. A. Fisher read a paper, illustrated with numerous prints and slides, "On the Pre-Raphaelites in Art." He traced the development of the original (Italian) pre-Raphaelites, and explained their principles and position in art, and compared them with the modern pre-Raphaelite school, making reference also to the naturalistic school of photography.

**SOUTH LONDON PHOT: SOC:—**The usual meeting was held on the 7th inst., Mr. Edwards in the chair. Eight members were elected, after which Mr. H. Banks, the Hon. Treasurer, gave a lecture, entitled a "Tour to the Channel Islands," illustrated by a number of slides (many of them his own work) shown by the aid of a triple lantern, also lent by Mr. Banks. Mr. Ransom brought to the notice of the members a novelty in focussing screens. It consisted of a finely-ground glass, in the centre of which was a transparent circle about half an inch in diameter. On the application of any ordinary focussing glass, the camera is transformed into an excellent telescope.

**SOUTHPORT SOCIAL PHOT: CLUB:—**This society has been inaugurated. The objects of the club are to bring together photographers, both amateur and professional (ladies and gentlemen), with a view of spending a pleasant evening each week, and for the benefit of all concerned by practical illustration both in photography and lantern work. The Secretary is Mr. Geo. R. Cartmel, 37, Derby Road, who will be pleased to supply any information respecting the club.

**STAFFS: POTTERIES AM: PHOT: SOC:—**Instead of the usual monthly meeting, a public exhibition of lantern-slides was given at the Coffee House on November 4th, and a number of invitations to members' friends were issued. The Mayor of Burslem (Mr. J. Wilcox Edge, J.P.), who was present, in the course of the evening made a short speech, in which he complimented the society on the success of the exhibition, and, in expressing the hope that the society would continue to increase, said he believed a person could not have a more fascinating or

useful "hobby" than photography. About 120 slides were passed through the lantern, and, where possible, a short description of each was given. Many of the slides were made by members of the society, and consisted of well-known local "bits," and also a number of Welsh and other views. Some amusement was caused by the exhibition of some instantaneous photographs taken in the streets of Burslem, and several individuals present were rather surprised to find themselves suddenly thrown upon the screen. A very fine slide of the Mayor was also shown, which Mr. F. R. Ryles, photographer, of Burslem, has given to the society.

**WEST SURREY AM: PHOT: SOC:—**The above Society held their meeting on the 5th inst., when Mr. E. Calland ably demonstrated and lectured on Mr. Lyonel Clark's platinum toning process, and also the process of toning before and after intensification with silver. He dwelt at some length on the salting and sensitising of different papers, more especially those of rough surface. Numerous prints were passed round by the lecturer to illustrate the results procurable. Messrs. G. Davison, W. Winsford, and others carried on a somewhat lengthy discussion, and the faults and advantages of the paper were fully brought before the meeting.

**WOOLWICH AND DISTRICT PHOT: SOC:—**At the meeting on the 6th inst., Mr. Ince in the chair, Mr. Calder gave an exhibition of lantern slides. The series consisted mainly of views in the neighbourhood, and included some from negatives taken at excursions of the Society, and some foreign views.

**WORCESTER AM: PHOT: SOC:—**On the 4th inst. a meeting was held. Mr. Albert Webb presided. Mr. Welford offered to give a free lecture on hand-cameras, illustrated by about 150 lantern slides; the offer was accepted. Mr. Lewis Baylis practically demonstrated the hot-bath process (platinotype). Mr. F. G. Jones read a paper on preparing lantern slides, which was practically demonstrated by Mr. J. Camm, who prepared and exhibited several slides. The rest of the evening was spent in the exhibition of a number of lantern views of Boston, U.S.A., and the neighbourhood, lent by the Boston Camera Club, to whom a vote of thanks was passed. It was decided to accept the offer of another set of American views. A hope was expressed that soon a set of views of Worcester might be sent in exchange.

**YORK PHOT: SOC:—**The annual meeting was held on the 4th inst. The Society have obtained very commodious premises for their meetings, where every convenience can be had for practical demonstrations, and a very prosperous year is being looked forward to. The election of officers resulted as follows: President, Mr. F. Vincent; Vice-President, Mr. H. C. Swales; Treasurer, Mr. R. Bainbridge; Librarian, Mr. C. Moses. Council: Messrs. Pawson, Ogden, Hick, Dickinson, and Maccormac. Hon. Sec., Mr. F. G. Benson, 18, Russell Street, York.

## To Correspondents.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns MUST be received by TUESDAY MORNING'S POST.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

### QUERIES.

4318. **Iford Developer.**—Will anyone tell me which solution is the accelerator, and which gives density, of the Iford hydroquinone developer—No. 1 or 2?—**PHILLIPS.**
4319. **Lens.**—Will anyone tell me which is the best lens to buy for general use, and the maker's name?—**PHILLIPS.**

4320. **Cloud Negative.**—Will anyone kindly tell me how to take a good cloud negative?—**PHILLIPS.**

4321. **Equivalent Focus.**—The opticians say that the equivalent focus of a lens ought to be double the greatest length of the plate; but as far as I can see the camera makers do not build their cameras to extend far enough for a lens of a focus double in length of the greatest length of the plate. How is this, and why?—**J. W. P. GIBSON.**

4322. **Lens.**—Can anyone tell me which is the most suitable lens, other than portrait, for very fast exposures out of doors.—**J. W. P. GIBSON.**

4323. **Shutter for an Exposure of 1-1000th of a Second.**—Will anyone tell me where I can get a shutter working at about  $\frac{1}{750}$  to  $\frac{1}{1000}$  of a sec. for a 10 by 8 camera? Also how to make a sensitive plate about twice or three times the speed of Paget XXXXX plates? The shutter must not exceed £8 in cost, and not occupy an enormous amount of room.—**T. W. P. GIBSON.**

4324. **Unmounted Prints, how to Keep.**—Will someone inform me the proper method of keeping unmounted silver prints from curling? I have tried drawing a flat-edged paper knife over back, and placing under weights; also immersion in glycerine 1 oz., methylated alcohol 2 oz., water 10 oz., but they curl as badly as ever.—**J. W. CAMPBELL.**

4325. **Iford Developer.**—I am using Iford developer. Will someone tell me what kind of acid and the amount to use in the ammonia solution?—**IMPROVER.**

4326. **Mountant.**—Is there a really good mountant? Starch has been well tried, but prints cannot be relied upon to stick, corners at least turning up before, during, or after burnishing. Excelsior mounting solution has been tried with worse results. This question is asked after very careful work and thought.—**M. B.**

4327. **Combined Enlarging and Home Lantern.**—(a) I require a lantern which would be suitable both for enlarging from quarter-plate nega-

tives and for giving exhibitions at home on a small scale. The price to be about 30s. or 40s. Would anyone kindly recommend me such an instrument?—from personal trial much preferred. (b) Is Lancaster's Miltum-in-Parvo adapted for enlargements by artificial light?—**J. R. M.**

4328. **Tripod.**—I am having a whole-plate tripod made by a local joiner, and shall be glad of any suggestions to give him as regards the same. Should it be made with sliding or folding legs? Should the top be round or triangular, and of what dimensions? What height should it be when fully extended?—**ERNEST.**

4329. **Lens.**—I want an R.R. lens for half-plate camera, and have had Taylor and Hobson's recommended me as inexpensive and good. Will someone who has used a lens by this maker kindly give me their experience as to covering powers, definition, etc?—**J. TALBOT.**

4330. **Cardboard Dishes.**—I have got some cardboard dishes, 10 by 8, and want to make them quite hard and water-tight with some preparation that will not affect the solution when using them for developing, fixing, toning, etc. Perhaps some friend will oblige with reliable formula to use?—**AMATEUR.**

4331. **Enlarging Apparatus.**—Wanted, one for enlarging a few photographs, at a cost of about a guinea or 30s. Can any fellow amateur recommend one from experience?—**M. R.**

4332. **Exposure Tables.**—I have an exposure table by Talbot and Eamer, based on Eder and Burton's. A similar table is also given in Cartwright and Ratray's "Systematic Exposure Book," which I have used for years. Can any reader state whether the comparative sensitiveness of the plates given by Talbot and Eamer is correct? For instance, it states that a Britannia ordinary is divided by 10, and an Iford ordinary by 20, so that it would appear the Ifords are double as quick as the Britannia. Again, Iford rapid is given as divided by 30, Fry's 60-times by 40, Britannia instantaneous



by only 30, Cadett's lightning by 40, but the Prize Paget XXXXX by 100; so that the latter is more than (by this table) three times as rapid as the Ilford.—FLEX.

4333. **Lantern Slides.**—Can any reader give me instructions as to the method of making lantern slides, or refer me to some publication on the subject?—BURGI.

4334. **Clyde Views.**—Where can I obtain negatives of views on the river Clyde for transferring on to lantern slides?—BURGI.

4335. **Washing Prints.**—Can prints be properly washed by being placed in bowls of water, and the water frequently changed? I have a zinc washer, but it tears the prints.—NOVICE.

4336. **Loan of Slides.**—Will any brother amateur kindly lend me a few quarter-plate negatives, suitable for lantern slide making? I will take the best care of them, and pay carriage both ways.—SLIDE (address with Editor).

4337. **Celluloid Varnish for Negatives.**—Would someone kindly give me exact quantity of ingredients used in making up a plain spirituous celluloid solution?—O. C. M. (Germany).

4338. **Positives.**—Can any of your readers kindly give me a formula for the alabaster solution for turning negatives into positives, as those travelling photographers do in the streets and at watering-places? I think it is done during development.—J. HUDDLESTON.

4339. **Hydroquinone, Ilford Formula.**—Using the Ilford formula for hydroquinone, ought I to dilute it with water, and if so, how much? I use it with those plates.—A. GROVES.

4340. **Plates for Football Match.**—Could anyone tell me with what plates I could best take a football match?—W. F. S.

4341. **Silk Photographs on.**—I have several friends asking for their photographs on handkerchiefs and bookmarks, and desire a good formula for sensitising the cloth.—BOOKMARK.

4342. **Snow Picture.**—Will someone kindly give me their experience in taking a snow picture, as regards the best plates to use, the exposure, etc.?—W. C. L.

## QUERIES UNANSWERED.

Oct. 3rd.—Nos. 4217, 4218.

17th.—Nos. 4239, 4250, 4260, 4261.

24th.—Nos. 4268, 4270, 4275.

31st.—No. 4297.

Nov. 7th.—Nos. 4305, 4310, 4312, 4314.

## ANSWERS.

### 4251. Hydroquinone and Eikonogen.—

Solution A.	
Hydroquinone ... ..	40 gr.
Eikonogen ... ..	120 "
Sodium sulphite ... ..	480 "
Citric acid ... ..	20 "
Distilled water ... ..	20 oz.
Solution B.	
Potassium bromide ... ..	5 gr.
Sodium carbonate (crystal) ... ..	60 "
" hydrate ... ..	30 "
Water (distilled) ... ..	20 oz.

To make the solution A, dissolve the sulphite and citric, then add the other ingredients, and shake till a perfect solution is produced. The developer being somewhat persistent, it may be used over and over again. A good method, however, is to throw, say, a fourth away after developing the first plate, making up the required quantity with fresh developer. This gives pluck and brilliancy.—ARLINE.

4274. **Burnishing.**—This question was very fully gone into some time ago, and "Half-Plate" would do well to consult the index of some of the previous volumes.—PETARR.

4296. **Stickphast.**—I have used Stickphast for mounting silver prints for over two years, and never found it do them any harm. It is the best mountant I have tried, always ready for use, if you keep in damp place.—OAK.

4304. **Borax Bath.**—I have given a good reliable formula so often before that I am quite tired of writing it out again, and must refer you to back numbers. You will find it given three or four times in the last half dozen issues or so.—W. A. J. CROKE.

4304. **Borax Bath.**—See my reply to 4315; or, if you require a good black tone, try

Bi-carbonate of soda ... ..	50 gr.
Chloride of gold ... ..	4 "
Water ... ..	20 oz.

—WILLEE.

4307. **Enlarging and Reducing.**—You cannot do better than get one of Lancaster's Mulum-in-Parvo. A dealer will instruct you how to use it; if not, write me through Editor.—WILLEE.

4308. **Mounting Solution.**—Try Stiff's starch, obtainable from any respectable grocer. Make as follows: Take ordinary tea-cup, in which put a good teaspoonful of starch. Mix into thin paste with cold water, taking care that no lumps remain; then fill up with "boiling" water, stirring all the while. Let stand until cool. Prints should be steeped in cold water until limp, and then pressed between

clean blotting paper immediately before pasting. If "B. M. A. W." will follow this direction he will have no difficulty.—ARLINE.

4308. **Mounting Solution.**—Get a small saucepan and a small stoneware jelly mug, put into the latter one teaspoonful of cold-water starch ("Glenfield" will do), and a half teaspoonful of cold water; when thoroughly dissolved, put as much water in the saucepan as will cover the bottom, say 1 in. deep, then place the mug with its contents in the saucepan, which place on the stove or fire, and when the water in the pan commences to boil, stir the starch constantly, until it changes in colour all through to a perceptible blue; it is then ready for use. Its consistency should be similar to glue, and if too thick, can be thinned with boiling water. When mounting prints, keep the mug in the pan, so that the starch may be kept warm. Use an ordinary paint brush when coating the prints, as the stiff hair will help to break the lumps in the starch. This mountant is very suitable when backing Obernetter prints with cartridge paper, just after they have been squeezed on the slab or glass. Silver prints should be mounted wet, as follows: Lift the prints singly from the washing trough and place them all face down on a flat dish, tilt the dish for about a minute to allow the surplus water to run off, then take a print and lay it face down on a piece of glass, dry the superfluous water off it with a piece of clean white blotting paper, coat it well with starch, and mount it. See that it is lying flat, but pay no attention to the lumpy surface of the print, as that will all disappear when the print dries. Continue the operation with the others; see that the glass is cleaned for each print (have a sponge and towel convenient), and have several pieces of blotting paper for drying and mounting.—PETARR.

4309. **Bellows-Making.**—You will find all you want in the "Year Book of Photography," 1889, page 172. This is the best account I have seen.—WILLEE.

4311. **Lantern Slides by Reduction.**—Cover back of half-plate negative, in reducing camera, with sheet of tissue paper or ground-glass, then burn 2 in. magnesium ribbon in front, moving same about freely to secure even illumination. Double quantity of ribbon if negative is very dense, or half quantity if thin. Use a quick lantern plate, like Fry's or Thomas's. Develop with hydroquinone, by preference, for ordinary work.—W. J. FARTHING.

4315. **Brown Tones.**—Get "Tyler's Almanac," published by him every year for 2d.; it gives a formula for every tone you can possibly want.—W. A. J. CROKE.

4315. **Brown Tones.**—To obtain the professional tones you require, use the following bath:—

Borax ... ..	25 gr.
Bi-carbonate of soda ... ..	25 "
Gold ... ..	4 "
Water ... ..	20 oz.

To maintain the strength of this bath, add 1 gr. of gold to each sheet of paper toned. Make up twelve hours before using.—WILLEE.

4315. **Brown Tones.**—If you print from a fairly-good negative, at least you can get fine purple tones by using the following bath:—

Chloride of gold ... ..	1 gr.
Acetate of soda ... ..	30 "
Water ... ..	5 oz.

I have tried several toning baths (tungstate excepted), but find that this works better than borax, or anything else. As to paper, I think Marion's works best with it.—A. GROVES.

4315. **Brown Tones.**—I think "A Novice" will find that if he soaks his prints for a few minutes in washing soda, his borax bath will produce purple tones. The following toning bath is excellent for purple and black tones:—

Borax ... ..	1½ drms.
Uranium nitrate ... ..	4 gr.
Chloride of gold ... ..	3 "
Water ... ..	24 oz.

—W. G. G.

4316. **Alpha Paper.**—Be sure your glass is dry. Rub it well with French chalk, and squeegee carefully, when I think you will have no further bother.—W. A. J. CROKE.

4317. **Moonlight Photography.**—So-called moonlight photographs are not moonlight photographs at all, but are taken direct at the sun, without including it. Moonlight itself will not do. You can, of course, take photographs of the moon itself, but that is not what you mean.—W. A. J. CROKE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

H. F. FOX.—There are no other makers of transferotype paper. Your best plan would be to use a collodion or gelatine emulsion, and coat the glass with that, and treat as an ordinary plate. Very good printing-out emulsion can be bought. You might also make a transparency by contact on a slow emulsion plate, and strip and transfer the film to the glass; but this requires considerable care and experience to do it well.

E. SARNES.—The celluloid would doubtless stop back a little of the light, but there is no reason why the films should not be used as you suggest. We believe no films have been introduced for this special purpose, and the emulsion on the negative films is far too sensitive to give first-class lantern slides.

F. V. E. P.—If you unmount your print and treat as you suggest, the danger of total destruction of the print is great. Cold water alone must be used for unmounting, and just tepid for washing; but the cause of fading may be in the mount. Can you not copy it? A dilute bath of 6 gr. of perchloride of mercury to the ounce of water has been recommended for yellow prints. This removes the yellowness, but will not restore faded detail.

JOHN TALBOT.—The name on your lens is that of a dealer, not a maker of lenses. You do not state the diameter of lens, nor work that you want it to do. A stop of 1½ in. diameter will be f/4, 1 in. f/6, ¾ in. f/8, ½ in. f/12, ¼ in. f/16, ⅛ in. f/20; smaller than this would hardly be necessary.

X.—Paint the glass side of your negative with some non-actinic colour, such as Bates' black, or lamp-black, rubbed down with ordinary negative varnish. When nearly dry, wipe off the details with a fine stump.

ARINAS.—You are right in your surmise as to having exposed your plates too long to the lamp, and causing reversal. It is a grave question as to whether the increased detail is actually detail or whether it is fog. The subject is well worth following up, however.

BLANCHÉ.—Most decidedly it is advisable to clear with an acid and alum bath; and, after half-an-hour's washing, bleach in an acid solution of mercury, wash half an hour, then blacken, then wash again half an hour. Silver intensification is far more difficult to succeed with. Wait till you master mercurial development.

BOB TUSON.—What else would you expect? Use 30 gr. of bicarbonate of soda to every grain of gold, mix with warm water, use in an hour, and if you fail, write again. Let the lead bath alone.

W. P. HUGH.—Your negative is so fearfully fogged in developing as to render any examination difficult. It is, however, we think over-exposed. Try adding your accelerator gradually.

YELLOW JACK.—The stains are certainly due either to impure mounts, acid mountant, or insufficient washing. We have not had sufficient time to test mounts yet. Washing before toning would have no effect; insufficient washing after fixing would.

F. W. HUNTER.—The 12s. 6d. instrument is decidedly the best. Over-development would not cause the defect which you call flatness. You are most likely using too much pyro and bromide. Have you tried eikonogen? This is preferable to pyro for reducing contrast.

M. J. M. E.—The only precaution to adopt when using the apparatus as you sketch is to see that a sheet of white paper placed in the position the negative should occupy is absolutely uniformly illuminated. You do not state whose paper you are going to work with. The lantern is a good one. The lantern slide camera will prove satisfactory. We have used one for some time. Clock glasses are no good.

H. F. FOX.—No. 1. The house is falling backwards. You did not use swing-back. The plate is over-exposed and under-developed. Intensify it with mercury and ammonia. (2) Under-developed. Yes; paint over face on back of negative, with red or yellow water-colour. Swing-back again wanted; negative would stand slight intensification. (3) Under-developed. Intensify, as per No. 1. No. 4: The cottages are out of focus. The cyclist and hedger we suppose are there, as you say so. Everything is again on the slope. Try and learn the use of the swing-back. Carry your development further, and let us see some more work later on.

MUTE.—(1) The streak of fog is due to the hinge of your dark slide, the material covering the same inside causing the fog. (2) To obtain such good detail in the trees you have over-exposed the water. (3) It is unusual for the sea to run up, as in this plate. Your camera was all askew. (4) As you say, a bad failure; also fogged in developing. (5) Insufficiently developed. Would give a fine print on Aristotype paper, with tissue paper over printing frame. (6) Why did you not fix properly? This accounts for the comets and other heavenly bodies visible on the negative. Let us see some more work in three months time.

RASTRICK AND SON.—We have registered the address for next season.

M. F. G.—Your letter does not further the matter, and we have no wish for a wordy correspondence. We thank all the gentlemen who have suggested our holding a "developing competition,"



and as in the multitude of counsellors there is wisdom, so we shall hope now to be able to frame conditions, which shall be fair, and meet the views of the largest number. We will send your letter to Mr. Townshend.

**PERCY SHEARD.**—Many thanks for your good wishes.

**GEO. MOORE.**—Very fair work for a beginner. Your lens is a landscape lens. Your prints are rather over-printed.

**W. LAY, SERJEANT.**—Will try and send a member of the editorial staff.

**JOINER.**—Half-plate. We do not know the first firm mentioned, and never recommend the goods of the second. For good and cheap cameras go to Lancaster, Underwood, Perken, Son and Rayment, etc.

**A. P. G. D.**—Both good; perhaps A will suit you best.

**M. F. KELLY.**—(3) Cannot loan slides for the purpose you name. (2) Either 2, 5, 1, in that order. (1) Why try another plate, when you are so well satisfied with the plate we have already recommended? The firm make lantern plates we believe. We placed those named in the following order:—4, 3, 2, 5, 1.

**H. S. W. E.**—(1) Have all the window if you can successfully block out actinic light. Paste over it several thicknesses of canary medium. (2) Don't experiment with hypo. You will find many first-class formulae for hydroquinone developers in back numbers.

**MISS MARY W. RITCHIE** (Nova Scotia).—Certainly; send to the "Monthly Competitions." All prints are criticised in the *Photographic Reporter*. Send them unmounted, flat, and we will mount them.

**J. W. R. BROCKLEBANK.**—There is no book devoted entirely to photogravure. One of the most recent is "Reproduction of Drawings and Photographs" (Waterhouse), which our publishers could supply.

**P. BRADSHAW.**—We cannot help you in the matter.

**LOUIS VAN NECK** (Brussels).—We have sent your note to the Secretary of the Camera Club, who will doubtless communicate with you.

**HALF-TONE.**—Such a photograph would not be admitted into any of the AMATEUR PHOTOGRAPHER competitions. You may think it very clever; but we consider it an abuse of photography, and have put it in the fire.

**BROOK.**—You will be quite well served by the firm E.

**E. G. SARNES.**—Do you wish us to return the celluloid film?

**E. A. YERBURY.**—Write to Marion or Fallowfield.

**A. P.**—In the following order:—5, 4, 2, 6, 1, 3.

**S. W. GARDNER.**—Some of us will attend.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send a report within TWO DAYS of receipt of goods.

### DEPOSITS.

**Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.**

**Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.**

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Cameras, etc.**—Cheap, 15 by 12 Lancaster's Multo camera, Stanley's ferrous magnesium enlarging lamp, Marion's changing bag, and Tylar's half-plate focussing chamber, all equal to new; room wanted. —B. Grover, East Lynn, Woodberry Down, N.

Lancaster's half-plate 1890 Instantograph, reversing back, all other improvements, rapid rectilinear lens, double book-slide, carrier, folding stand, measures, printing frames, lamp, dishes, etc.; £4 lowest; approval. —Cooper, 9, Sussex Terrace, Markfield Road, Page Green.

**Camera, Lenses, etc.**—Lancaster's 1890 half-plate Instantograph camera, dark-slide, with tripod, rapid rectilinear f/8 lens, new; list 105s.; bargain, 67s. 6d.—14, George Street, Stroud, Glos.

Lancaster's quarter Instantograph, complete, extra dark slide, Optimus 5 by 4 rapid rectilinear lens; offers.—Brown, 182, Eglinton Road, Woolwich.

Quarter-plate Lancaster's Instantograph, latest pattern, practically new, two double dark-slides, case for camera and slides, stand, ruby lamp; 40s.—H. W., 138, Abbey Street, Bermondsey, S.E.

Nearly new 5 by 4 camera, splendid working order, Optimus rectilinear lens, reversible and swing back, three double dark slides, stand, and latest improvements; worth £7 10s., will take £5, or offers. Also two 5 by 4 Optimus lenses, viz., rapid EurySCOPE, suitable for portraiture or landscape, 60s.; and a wide-angle symmetrical, 36s.; both new, and would fit above camera; would take 90s. for the two. Moreover, for sale, a new and beautiful 7 by 5 Optimus extra-rapid EurySCOPE, large diameter lens, not been used; 94s.—Address, Micklem, Milton Road, Wokingham.

**Dark-Tents.**—One dark-tent (Symonds, Portsmouth), complete, on stand, with window, shelves, sink, etc., £1; one ditto, large, with poles, 10s.; bargains.—Laprimaudaye, Three Bridges, Sussex.

**Induction Coil,** gives 1 in. spark in air, very powerful; what offers?—Male, Soham, Cambs.

**Lantern Negatives.**—Lantern negatives, foreign views; samples 8d.; 4s. 9d. dozen. —Marchant, 87, Asylum Road, Peckham.

**Lenses.**—Optimus 7 by 5 EurySCOPE, new condition; £3 12s.; cost £4 14s. 6d.; approval; deposit.—Bennett, 43, Avenell Road, Highbury.

7 by 5 Optimus rapid landscape, new; honest bargain, 27s.; cost 38s.; approval; deposit. —Boothman, 46, Thurlow Street, Salford.

7 by 5 R.R., as new, splendid definition; 25s.; cash or exchange.—T., 93, Stamford Street, S.E.

For sale, a pair of Harrison's Globe W.A. lenses, 3 in. focus, cost £4 16s., price £3; Levi's portrait lens, 15s.; lantern objective, 10s.; Lerebours and Secretan's quarter-plate portrait lens, 20s.; pair of single stereoscopic lenses (by Darlot), 20s. the pair; quarter-plate portrait lens, 15s. —F. R. Upcott, 135, Brigstock Road, Thornton Heath. (Can be seen at the offices of the AMATEUR PHOTOGRAPHER.)

A Dallmeyer's half-plate triplet lens, very good condition; £2 10s. A half-plate portrait lens; £1 5s., cheap.—H. Cooke, 3, Weekday Cross, Nottingham.

Lens, rectilinear, grand, covers 7 by 5, loose hood, stops working f/8; 25s.; approval.—G., Albion Cottages, Avenue Road, Stamford Hill, N.

Would exchange 9 by 7 view lens, by Bland, London, 14 in. focus, for 5 by 4 rapid view lens, 5½ in. focus.—Arthur Norman, Saint Osyth, Colchester.

**Shutter.**—Ebonite Phantom shutter, pneumatic release, for hood 2½ in., good condition; cost 27s.; price 15s.—John Daniell, Colleshill, Llanelli.

**Shutter, etc.**—Newman's half-plate time shutter, 10s.; Stirling's detective camera, 20s.; both equal new, and perfect condition; lot 25s.; approval with pleasure.—Barton, Morriston, Elgin.

## WANTED.

**Cameras, etc.**—Half-plate camera, long-focus, and three double backs. —State cash price on approval to Clarence James, Louth, Lincs.

**Cameras, Lenses, etc.**—Half-plate camera, lens, tripod, two or three dark-slides, and bag, by good maker, cheap.—Jinkins, Glensarm, Belfast.

Whole or half-plate modern camera, with rectilinear lens; will give good lathe or first-class bicycle. —Shepherd, Writer, South Tottenham.

**Dark-Room.**—An amateur wants to rent a dark-room, with water laid on, by the month; must be near Hyde Park or Piccadilly. —No. 82, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

**Hand-Cameras.**—Hand-camera, Shewor Kodak. —Particulars to J. Lowry, 2, Marchmont Gardens, King's Road, Richmond, Surrey.

Shew's half-plate Eclipse hand-camera, standard pattern, four rotating stops, complete, sound, cheap, approval; deposit.—Full detailed description and price to L., 91, Turlton Street, Bolton.

**Lantern Slides.**—Cheap for cash, 50 or 60 good lantern slides, coloured tales preferred.—State subjects and lowest price to Smith, High Street, Molesey, Leeds.

**Lenses.**—Pair R.R. stereoscopic lenses, must be accurately paired.—C. Naylor, Batley.

Cheap lens, suitable for magic lantern. —Hugh McMaster, Blairbush, Portwilliam, Wigtownshire.

**Negatives for Lantern Slides.**—Half-plate and under that size; would prefer them on loan.—Elliott, Ford House, Exeter.

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## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LTD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

## SPECIAL COMPETITION,

ILLUSTRATING THE

## "SEVEN AGES OF MAN,"

As described in Shakespeare's Play "AS YOU LIKE IT" (Act II. Scene VII.)

FIRST PRIZE	...	GOLD MEDAL.
SECOND "	...	SILVER MEDAL.
THIRD "	...	BRONZE MEDAL.
FOURTH "	...	CERTIFICATE.

**CONDITIONS.**—That the Photographs shall be from life, in the costumes and with the surroundings of ordinary daily life. Photographs in which the subject have been "got up" will be rejected.

The prints may be by any process. The prize photographs will become the property of the Proprietors of the AMATEUR PHOTOGRAPHER, who will have the right to call for the use of the negatives.

All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play, neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man,"

EDITOR:—AMATEUR PHOTOGRAPHER,  
1, Creed Lane, London, E.C.



ELLIOTT &amp; SONS, "BARNET" PLATE,

PARK ROAD, BARNET.

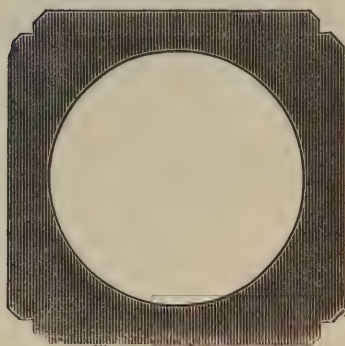
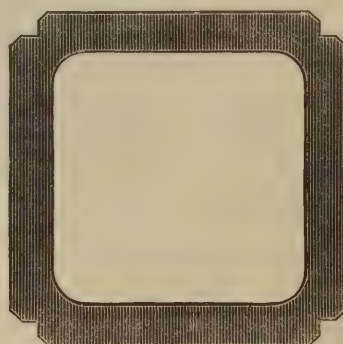
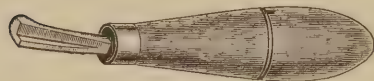
**ENLARGING MADE EASY**BY  
**SHENSTONE'S PATENT ENLARGING CAMERA AND STAND.**

Combines the Advantages of the Oil and Magnesium Lantern.

No other lantern offers so many facilities. It will enlarge from  $\frac{1}{4}$  to whole plate negative or larger, and any size up to 24 by 24 inch enlargements or larger.**Price £5 10s. complete.***For full particulars apply to***J. C. SHENSTONE, Photographic Chemist, Colchester.**The "Amateur Photographer" has  
the largest circulation of any photo-  
graphic publication in the world.**MOORE'S COMBINATION FRAME.**NEW REGISTERED DESIGNS  
IN METAL FRAMES.**MAT AND PRESERVER COMBINED FOR MAGIC LANTERN SLIDES.**

REGISTER No. 144,508.

REGISTER No. 144,507.

**Price 12/- per gross.****Price 12/- per gross.****ADVANTAGES.**—Mat and Preserver Combined. No Black Paper Mat required. No Breakage at the Corners: the Apertures round or Cushion are always in the centre of the Glass, decidedly the best protection against Breakage of Glasses that has ever been produced.SPECIAL  
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# PHOTOGRAPHIC QUARTERLY,

## OCTOBER, 1890.

LONDON: HAZELL, WATSON, &amp; VINEY, LD., 1, CREED LANE, E.C.



# The AMATEUR PHOTOGRAPHER

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FRIDAY, NOVEMBER 21, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

'To hold as 'twere the mirror up to nature.'—Shakespeare.

THE Edinburgh Photographic Exhibition, opened on Friday last by the Right Hon. the Lord Provost of the City, must be pronounced a success. The number of exhibitors from the South are not so numerous as we should have expected, but Scotland, especially as represented by professional photographers in Edinburgh and Glasgow, has made a splendid show, and in portraiture some most excellent examples are hung. We laboured under considerable disadvantage in that the catalogue was not completed, and the judges' awards had not been made. Still, there were many photographs which needed no judge's interpretation of their merits, to satisfy even the most unlearned in photography, to class them as most admirable specimens of the art. Such workers as Crooke, Tunny, Moffat, Marshall, Wane, Jamieson and Co., Ayton, Gibson, H. P. Robinson, R. W. Robinson, Lyd. Sawyer, R. Keene, and others, clearly show that in some classes, certainly, the running for prizes amongst professionals will be very close. In the amateur work we cannot speak of so high a standard; the best work exhibited is possibly from the South, at least we recognised the work of several men who have exhibited, and quite a number of the successful contributors to the AMATEUR PHOTOGRAPHER competitions. We shall reserve any notice upon the exhibits until after the medals have been awarded. Some very interesting historical pictures have been got together; in that section alone there is work for a day's study. Apparatus is contributed by several firms, but the best show is that made by Messrs. Geo. Mason and Co., of Glasgow, and Mr. William Hume, of Edinburgh.

THE Exhibition contains some 1,200 frames, and the opening ceremony on Friday was very largely attended by ladies and gentlemen. The President of the Edinburgh Photographic Society, Mr. Hippolyte J. Blanc, explained to the audience that the last photographic exhibition was held in Edinburgh fourteen years ago, and that since that time many advances had been made which were well represented on the walls of the gallery. He also stated that the Society had over 400 members. The Lord Provost, in a short but interesting speech, declared the Exhibition open.

THE reception held by ourselves at the Waterloo Hotel, notwithstanding most inclement weather, was attended by a very large number of gentlemen, all interested in photography, and, with but one or two exceptions, resident in Edinburgh or Leith. It was extremely gratifying to us to find that the many publications in which we are inter-

rested are so widely read in Scotland, and that so many were good enough to accept our invitation.

At the meeting of the shareholders of the Automatic Photograph Company, Limited, the Chairman, the Earl of Kilmorey, in the course of his speech, said:—

"With regard to the machines, since we met you last we have got some of them working, and I have the pleasure of telling you that the results are quite satisfactory. A great many difficulties arose, which nobody who has any knowledge of photography or of delicate machinery will be surprised to hear. These were mainly owing to the changeable nature of the weather at this season of the year, and it took all the intelligence of our professional adviser, Mr. Nievsky, to cope with these difficulties; but, owing to his intelligence and knowledge of photography, and owing to the energy of our Manager and the care and interest our manufacturers had taken in the machines, we have now overcome all these difficulties; and as at one time we were horrified by the appearance of the first few pictures that came out, now we are equally well pleased with the style of those which are now being produced for the public."

WE publish a letter from Mr. C. Canfield, the accomplished editor of the "American Annual of Photography and Photographic Times Almanac," in which he informs us that he is sending fifty copies of the "Almanac" as a contribution to our "Daguerre Tomb" fund. As soon as these come to hand they will be offered for sale, and the proceeds, as he suggests, will be applied to the fund. We hope that the liberality of the Photographic Times Publishing Association will act as an incentive to others to help us raise this fund to a sum worth giving as the contribution of workers in photography. In all seriousness we think that during the coming season, when the AMATEUR PHOTOGRAPHER Prize Slides are shown, the audience might be asked to contribute to the fund; even a few shillings collected upon each occasion of their being shown would materially raise the amount already promised.

THE East Southsea Photographic Society have got to work, and already no less than twenty-six members have been enrolled. Rooms have been secured in the Albert Road, which are being furnished as dark-room and reading rooms.

As we said last week, the question of reduced rates for photographers travelling by rail is not a new matter. In the AMATEUR PHOTOGRAPHER, vol. ii., April 10th, Mr. Samuel Highley contributed a letter upon the subject,



setting out very clearly the advantages which had been secured by the Central Angling Association. The privileges had then been enjoyed by members of that Association for twelve years. He quoted as an example the fares from Liverpool Street to Ware, a distance of 22½ miles :—

	First.		Second.		Third.	
	s.	d.	s.	d.	s.	d.
Ordinary return fare	6	8	5	6	3	10
Special fare .. ..	4	5	3	4	2	0

And again in vol. ii., May 1st, Mr. Highley contributes very full particulars of the "privilege tickets" granted by the L. and S. W. R., G. W. R., M. R., G. E. R., L. and N. W. R., G. N. R., and the L. B. and S. C. R. companies. Of course, these tickets are granted only for special fishing centres, but they apply to no less than 120 stations. The members of fishing clubs are members of the Central Angling Association, and pay a small annual subscription which entitles them to the privilege tickets above referred to. How to apply the principle to the necessities of the peripatetic photographer is the point to determine, and one which we hope to see consummated before the spring. Union is strength, and so it behoves those who are willing to work to gather in the opinions of the members of the many photographic societies. We are not very sanguine about universal action. Still, the photographic societies in the metropolitan area now represent a very considerable number of workers in photography; their united action and proposals laid before the Directors of the different railway companies, with reference to stations within, say, a radius of one hundred miles, would certainly test the question. Our columns are, of course, open to the free discussion of this important matter. On June 12th, 1885, we wrote: "Unity of action in matter of privilege railway tickets is, in our opinion, an essential element of final success. We would strongly urge the various societies to take no action separately. Wait patiently until a considerable number of societies have decided to join the movement, and then act as one man." We will now repeat the advice, and trust that what fell through in 1885 will be carried to a successful issue early in 1891.

WE are pleased to note that an amateur photographic society has been established at Douglas, Isle of Man. The island is a favourite resort for amateur workers from Lancashire and Yorkshire, and the Executive will do well to permit temporary membership, as many visitors will be glad to have the advantages the society will, no doubt, be able to offer.

WITH reference to our competition "The Seven Ages of Man," we would explain that the lines from "As You Like It," were given as a guide more to the "ages" than to the characters. Competitors may photographically illustrate each "age" according to their own will and fancy, and under the circumstances of the ordinary surroundings of present day daily life. We have received many letters from intending competitors, more than one pointing out that the soldier of to-day is not "bearded like the pard." All we wish to see is the "seven ages of man" photographically illustrated, feeling certain there is plenty of scope for such work amongst the friends and acquaintances of almost every reader of this journal.

THE Secretary of the South London Photographic Society (Mr. S. W. Gardner) has sent us a photograph of the bill, or poster, announcing the holding of the Society's Exhibition on the 21st and 22nd inst. The print is clearly legible, although the bill has been reduced to what we believe is

called "midget" size—smaller than carte-de-visite. There is every prospect of a most successful exhibition. The Society is under energetic management, and is growing very strong both in numbers and work.

THE *Irish Times* is responsible for the following :—

"I hear that the Princess of Wales has become a very expert manipulator of the Kodak, and has created a great amount of fun in the Royal circle by taking members of the family in all sorts of curious circumstances. Her Royal Highness while in Scotland got some excellent portraits of the Queen in several positions, and also took about eighty negatives, in which royalties and other distinguished personages are shown wading on the coast."

THE *Optical Magic Lantern Journal* (Taylor Brothers) improves with every issue. The November number has some excellent articles of interest to lantern workers. The "Scheme for Lantern Slide Exchange" deserves support. The *Journal* really fills a want, and should have a large sale.

#### INSTITUTE OF PAINTERS IN OIL COLOURS.

ONE does not expect to meet with any startling novelties at the Exhibition of the Institute of Painters in Oil Colours. The tendency there is distinctly to keep to the beaten paths of art and to discourage any wandering from them which might possibly result in proving the danger as much as the fascination of untrod paths.

If the stimulating eccentricities of modern Impressionism are conspicuous by their absence from this Exhibition, and but little evidence of work of an ambitious or imaginative character, there is an abundance of pleasant and agreeable pictures—transcripts of home scenery, of farm-yard, stack-yard, and sedge-banked river, which should be of great interest to all those who, in photography, seek to render subjects of a like character.

In many of the smaller works, it is almost self-evident that the painter has taken his arrangement of materials direct from nature without alteration, and has contented himself with selection of point of view only, while in many of the larger and more pretentious works, the arrangement and effect have been based upon the study of nature plus the study of the works of David Cox.

In figure subjects and portraiture, with some few exceptions, the Exhibition is decidedly weak; a triviality in choice of subject and a want of dignity of treatment being very apparent.

Mr. C. Burton Barber has long been pre-eminent in the production of what may be termed the nursery-wall picture; children playing with kittens and dancing with dogs are turned out with ceaseless activity. In "Too Many Cooks" (14) we have the same girl and the same dogs; the girl at a kitchen table making pigs of dough to the admiration of her canine companions, who are probably influenced by the hopes of a reversionary interest in them.

"A Sea Idyll," by Mr. George Wetherbee, is a charming little picture of boys bathing on a rocky coast, good in composition and feeling of light. A stock subject in art is "The Broken Pitcher" (61), and to make it acceptable it would require a freshness and originality of treatment which Mr. Frank W. W. Topham's version does not possess, the attitudes of the figures being forced and affected.

A fair-haired child, seated at a piano, playing "A Song of Long Ago" (111), while the old lady, presumably her grandmother, listens with mind filled with memories of the past, cannot claim any great originality of subject; but Mr. John Henry Bacon has treated it with tenderness and delicacy; it is not only well painted, but has also the charm of unexaggerated sentiment.



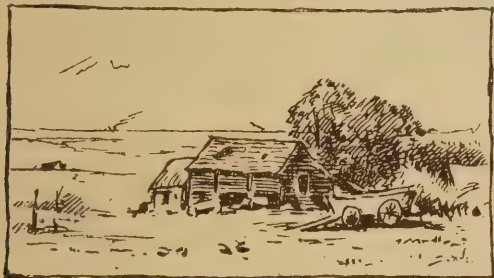
In "The Firstborn" (466), Phil. R. Morris, A.R.A., gives us the familiar happy haymaker, wife and child, whose acquaintance, pictorially, we have so often made before. A truer note of rustic life has been struck by Mr. Robert Fowler in "Nearing Home" (589), where an old peasant woman, sack on back, is trudging along at close of day; it has fidelity to nature without affectation or commonplace.

If in "A Dutch Cobbler" (566), by Mr. Hugh Carter, the subject and treatment bear too much impress of the influence of Josef Israel, the painter has been fortunate in imparting the good qualities of the great Dutch painter, sobriety and breadth of tone and simple natural arrangement.

Brilliancy of colour and execution are the chief characteristics of "Love's Language" (578), by Mr. James Clark, where a fair Moorish maiden drops a rose from a latticed window, while her dusky-skinned handmaiden stands behind and pulling aside the hanging, watches its course.

Of classical, decorative art, Miss Ethel Wright's "Whispers" (40) is almost the sole example and is graceful and pleasing.

Those interested in allegorical art will probably study with amazement the proportions assigned to the presentment of a disembodied spirit by Mr. Henry J. Stock in his picture "The Release" (496).



N. 75.

But little need be said of the portraits here. The dexterous, clever execution of Mr. J. J. Shannon's portrait of the son of Christopher Trower, Esq. (642), is undoubted, but the extraordinary choice and treatment of the background mar the effect of the whole. In several of the portraits, a lesson seems to have been taken from, instead of affording one to, photography.

The landscape contributions, as they are the most numerous, are also, fortunately, the most interesting. Mr. Fred. W. Jackson's "A Corner of the Stackyard" (18) has all the freshness of the sketch direct from nature, though surely the waggon is rather small.

"Porthamel Farm, North Wales" (27), by John R. Reid, shows, as in his other works here, the same striving for some theoretic scheme of rich colour, to the exclusion of all other qualities. The farmer's cart, toiling its way "Homewards" (38), along a moorland road, by the light of the rising moon, is sympathetically treated by Mr. Arnold Helcké; and somewhat similar in tone, though possessing much greater originality, is the "Genevieve" (44) by Mr. T. Hope McLachlan, whose work has always some tinge of poetic charm.

"Spring" (39), by Mr. R. Wane, an orchard in blossom, with sheep and lambs in the rich fresh grass, is bright and gay as it ought to be. Mr. H. Hughes-Stanton's large panoramic view of the "Valley of the Arun" (43) seems to be lacking in that quality of light which gives such charm to Mr. Napier Hemy's "A Cornish Porth" (57), with its picturesque jetty, figures, and fish. Always free from

affectation, either in choice of subject or effect, are the landscapes of Mr. Aumonier; refined colour and delicate gradation of atmospheric effect, with good arrangement of simple material, are to be found in his picture, "On a Sussex Farm" (75), a group of barn buildings and waggon, backed by a mass of trees on the slope of a down which stretches away to a distance of hazy sunny sea.

Much careful work has been expended on "Haunted" (76), by Mr. J. L. Pickering, but a dry, hard execution of



N. 675.

detail takes the place of the weird suggestiveness which would best have accompanied this subject.

A certain healthy, vigorous tone pervades the three contributions of Mr. E. W. Wimperis. There is no searching after subtle or novel effects; he is contented to see and render nature as David Cox saw and rendered it, and though from this reason a mannerism and want of originality is apparent, there is a fresh, breezy feeling, especially in the sky and cloud effect, which is inspiring. The very title of the first work of this painter that we come to, "A Fresh Day" (98), explains his aim, though many will prefer "A Cottage on the Common" (675), with its tall trees, rustic bridge, distant village church, and wind-swept clouds, as being the most characteristic example.

Though much inferior in point of artistic execution to the last-named painter, Mr. James Orrock goes to the same sources for inspiration, only there is much less of nature, and much more of picture imitation in his work. "A Ferry in Leicestershire" (33) and "Normanton-on-Soar" (645) are characteristic examples of his qualities and defects.



N. 645.

Less traditional in rendering, and taking nature more exclusively as guide, Mr. Claude Hayes has given to his landscape, "The Level Sunshine Glimmers with Green Light" (104), a fresh treatment of familiar material—trees, meadow, sheep, and stream. Mr. Yeend King must certainly be credited with complete emancipation from the brown tree period. He tackles foliage in the rich fulness of its summer green, but with varying success. "Haddon" (65) seems rather heavy and wanting in air; and much more satisfactory is his small picture of "A Farmyard" (197). An excess of brilliancy which approaches harshness and



crudeness mars the repose of Mr. Ernest Parton's "Summer Days at Wargrave" (162). Though somewhat mannered in treatment, the same painter's "Now Blooms the Lily by the Bank" (511) is a pleasant bit of riverside scenery with its wealth of foreground plants.

Sheep and shepherd coming "Across the Downs" (178) in the full glow of afternoon sunlight is a pleasant picture by Walter Osborne, who has also in "Ploughing—a Study" (312) given us a fresh little transcript from nature, true in colour, tone, and lighting.

There is nothing very striking in the treatment of marine subjects, but Mr. Hamilton Macallum has successfully included in a small picture, "The Connoisseur" (406), his frequently repeated combination of rippling sea, fishing boats, and amphibious boys.



Pl. 592.

Great dexterity of handling, and clever, if somewhat over-evident, pictorial treatment usually characterise the work of Mr. Keeley Halswelle; nor are these qualities absent from his "Early Moonrise, Venice" (572); but a certain want of truth of tone and mystery gives a look of flimsiness to the picture, and it fails in being impressive. Pleasant in line and arrangement is Mr. C. J. Lewis's picture, "The Fisherman's Anchorage" (592), a bend in a tidal river dotted with boats, and the line of the low-lying banks broken with trees and windmill.

The student of landscape photography will get many useful hints of arrangement and composition from a visit to the Exhibition of the Institute of Painters in Oil Colours at the Galleries in Piccadilly.

## Negatives and Positives.

"OUR Innocent One" would like to know if the opposite to *likeness* is *dislikeness*; anyhow, that is often the consequence of his offering to "take" his friends—so he says.

*On dit.* A friend of ours has had his pet corn badly trodden upon, metaphorically speaking. He is an ardent exponent of the school who "go in for having their things artistic and soft, don't you know—none of your nasty photographic biting sharpness about them." On showing one of his extra fuzzy impressions to a soulless friend, his own soul was ground to "dust of despair" by the remark, "Not half bad; you should have it engraved—on steel, and get some detail into it, if possible."

By the way, it is an apt illustration of the great law of compensation running through nature, that those who abuse others for this "biting sharpness" in their photographs, themselves reserve their "biting sharpness" for flavouring their remarks about others who are not in harmony with their own views.

"BLUNT'S UNDESIGNED COINCIDENCES" is a standard work. It has once and for all placed evidence of this character in a place of the first rank. So far as the present writer's pen is concerned, it was an "undesigned coincidence" that the "stale plate question" should be referred to on three different pages (324, 322, 321) in the AMATEUR PHOTOGRAPHER of November 7th.

ALL peace-loving church-folk (high, low, broad, or any other pattern) will be glad to learn that "Messrs. Eyre and Spottiswoode have for some time past been engaged within the precincts of the House of Lords in photographing what is known as the "annexed" copy of the Book of Common Prayer, which was originally joined to the Act of Uniformity. The greatest care has had to be taken in preparing the plates, that every letter and every stop shall be brought clearly out, and that all parts shall be in exact proportion." If photography, by its aid in this direction, ends, or helps to put an end to, vexed points of ritual, it will have earned for itself a warm place in many an honest English heart.

In the various public and private libraries of this country there are hundreds of unique and priceless manuscripts which could be copied by photography, and there are hundreds of able and willing workers to whom this would be a work of love, *but* (and this ought to be a capital BUT) these volumes are tied up with *red tape*, and are likely enough to remain so tied up until a fire sets them free—too late. When the steed is stolen, how earnestly do we wish that we had had the forethought to lock the door!

THE idea of a "question box" does not seem sufficiently well known in provincial societies. Very few of us are anxious to display our ignorance by asking a simple question which may be puzzling us terribly, and yet easily answered by those who have had wider experience. The result is, that in many meetings there are often a few quiet, shy fellows who plod along, anxiously hoping that "someone who can make a speech will ask, etc.;" but, alas! their own particular difficulty never does crop up, and presently, continued failure is followed by disheartening apathy. The question-box meets this difficulty. Let the enquirer simply put his question, in as simple a form as possible, on paper, with a motto in place of a name, and forward it to the "question-box, care of Secretary." This will be opened at the next meeting, the question read out, the question solved, and happiness obtained for the shy young fellow, who is often a far better specimen of humanity than the blustering, bouncing, know-everything coxcomb.

INSTANTANEOUS PHOTOGRAPHY. — The *Newcastle Weekly Chronicle* says: "A photographic apparatus, the most wonderful in its way, has just been submitted to the Académie des Sciences. The wonder will not be disputed when we say that it gives fifty images per second. An example of the work is a picture of two men in a sword fight. One is disarmed, and while his sword is falling to the ground it is photographed eight times!"

It is said that the German Emperor is one of the busiest of amateur photographers, and his personal assistant in taking portraits and groups, Herr Ziesler, had to learn riding to enable him to follow his Majesty on his hunts and other expeditions. At the recent Koenigsmark marriage, Herr Ziesler played his "Kodak" on the bridal couple, much to the astonishment of the guests. "Ah!" said the Emperor, laughingly, "I forgot to tell you that my photographer follows me everywhere. I gave him a personal *passe partout*, and you must not mind his goings on."



## Letters to the Editor.

### DR. EMERSON AGAIN.

SIR,—If Dr. Emerson's apology had been more gracious, I should have had great pleasure in replying in the sense of the words of the old comedy, "an affront handsomely acknowledged becomes an obligation," and acted accordingly, but he has deprived it of that charm. He naively says he regrets, "for the sake of the argument," that Mr. Williams was dead in 1874! I regret it myself for other reasons.

Dr. Emerson's other remarks would require no further reply if some of them were not put so suggestively that it may be thought there is more in them than meets the eye, if I declined to notice them.

I am asked triumphantly, "Was not the author of 'Brenda' Mr. H. P. Robinson?" Of course he was. But what of that? It was a successful picture, and induced Mrs. Cameron to ask me what was the secret of my success. This was the beginning of our acquaintance, and we were always good friends. I could only reply that to her artistic taste should be added a little attention to elementary photography, and other good advice. I am sorry to have to allude to these little things, but it is impossible to answer these subtle insinuations without doing so.

To the ejaculatory remark, "Alas! the day," I own I cannot reply, as I am too dense to understand its application, but as Dr. Emerson wants to know, I may state that the chapters of "Pictorial Effect" ran through the *Photographic News*, the year before they were published in a volume, that is, in 1858; but this does not help his argument, that I opposed Mrs. Cameron in 1865. As a matter of fact, I always applauded her art, if I condemned her careless manipulation.

One of the meanest and most objectionable controversial devices is a sort of mysterious suggestion of some damaging exposure or other. It is the sort of thing to which Hamlet alludes—

"As, 'Well, we know,'—or, 'We could, an if we would,'—  
Or, 'If we list to speak,'—or, 'There be, an if they might.'"

Dr. Emerson is sometimes guilty of this artifice, to which I ought to be surprised he should descend. After asking your readers to study the *Photographic News* from 1864-74, he says "They can judge for themselves, and if any are curious I can supply them with the names of the authors of certain stupid anonymous letters." Now, I own to being very curious to know the names of the writers of these anonymous letters against Mrs. Cameron during the period mentioned. I would say at any time, but it is necessary to bind Dr. Emerson down to his own words, or he jumps away. I ask Dr. Emerson to perform his promise, or his threat, and to give me the names, not privately, but in public. I have a fairly good knowledge of the early volumes of the *News*, but I have no knowledge of anonymous letters adverse to Mrs. Cameron. Now here is again something definite, and I can wait for reply until Dr. Emerson returns from his wherry to his library, but I must ask him not to make another mistake, and to bring proofs instead of the usual wild guesses and assertions.

I may add that I have carefully read Mr. Blanchard's very opportune article, dealing with the early history of diffusion of focus, in your last number, and can endorse every word of it, having a vivid recollection of the time—a time at which Dr. Emerson had probably not heard of photography, for then the process was slow, and children's portraiture not so general as it is now.—Yours, etc.

H. P. ROBINSON.

\* \* \* \*

### MR. MASKELL'S ILLUSTRATION IN THE "PHOTOGRAPHIC QUARTERLY."

SIR,—Dr. Emerson has declined to comply with my reasonable request to him to substantiate his statements regarding the photogravure which illustrates my article in the *Photographic Quarterly*. Such vague assertions were not, perhaps, worth noticing, except for the accusations of unfair practice which they implied. Statements of the kind call in question the *bona fides*, not to say honesty, both of myself and of Mr. Colls. If correct, they would be evidence, to say the least of it, of a lack of judgment on my part which, for the present at any rate, I am not prepared to admit.

I am anxious that those interested should have the same opportunities of forming an opinion on the matter as Dr. Emerson has himself had. Dr. Emerson, being at Mr. Colls'

studio, took the opportunity of examining the transparency from which the plate was made. This, by the way, he had not the slightest right to do. He has, perhaps, since then had no further opportunity of examination. Hence, doubtless, his perplexity, and inability to substantiate the statements which he has so heedlessly made. I may state that the original negative, the transparency, and a platinum print may now be seen at the Camera Club by those interested in the matter. I shall be surprised if the judgment of unprejudiced critics should lead them to the conclusion that the plate has been worked upon in order to produce the effect of differential focus.

I will not argue with Dr. Emerson. In fact, I am happy to be able to agree with him in one thing. He remarks that "before amateurs write upon art they should study the subject first, and find (secondly) if they have any artistic ability. We want more 'practical artists' and less writers." I am cordially of the same opinion. The confession on the part of Dr. Emerson is extremely refreshing.

It is unfortunate that some people cannot be made to understand that to be wantonly offensive in writing is a sign of ill-breeding and defective education. Even if one does not know a person, it is not good form to contemptuously assume that he is elsewhere unknown and not worth consideration. For instance, I know little about Dr. Emerson, but it would be bad form if I were to refer to him as a Dr. Emerson. If also I do not take the trouble to read what he has written, I have no business to assert that it "shows that he is not well informed upon the subject upon which he writes."

Banter is one thing, studied impertinence and arrogant assumption of superiority another. The one is diplomatic in finesse, the other merely stupid and vulgar. What a master of polite banter is Whistler, and what wretched imitators are we not acquainted with!—Yours, etc.,

ALFRED MASKELL.

\* \* \* \*

### DAGUERRE TOMB FUND.

SIR,—Your note in the October 17th number regarding the fund for the restoration of the tomb of Daguerre attracted my attention; and, as a response to it, Mr. W. Irving Adams, President of the Scovill and Adams Company, has authorised me to notify you, on behalf of the *Photographic Times Publishing Association*, that fifty copies of the "American Annual of Photography and Photographic Times Almanac" for 1891 will be shipped to you, charges prepaid, as soon as issued (about December 1st), the proceeds of their sale to be devoted to your "Daguerre Tomb" fund.

The special fitness of this issue of the "Annual" for this special purpose arises from the fact that the opening article, on which I have expended considerable research, treats in a more complete manner than has ever before been done on "The Portraits of Daguerre," and is accompanied by ten full-page reproductions of original portraits, one of which has never before been published. This one (as well as were two of the others) was made in 1848 at Daguerre's chateau, by Mr. Charles F. Meade, of the firm of Meade Brothers, one of the principal daguerreotypists of New York City at that time. He is generally credited with being the only photographer to whom Daguerre ever gave sittings. Mr. Henry Meade, the other member of the firm, in 1853, made a daguerreotype view of the tomb at Brie-sur-Marne, which I regret my inability to reproduce.

In its other feature, the "Annual" will not fall below its acknowledged high standard of interest or completeness. There will be upwards of thirty pages of illustrations, including one in colours, and no expense has been spared to make it the *ne plus ultra* in its line. The edition sells here at 50 cents per copy (not including postage), and it is sent out in wrappers for mailing.

I presume that your well-known enterprise will secure and publish a reproduction of the tomb, both before and after the restorations have been completed, and hope that you will favour us with early copies.

Wishing you success in your undertaking, and hoping that the contribution herewith tendered may realise profitably for your fund, I am, very truly yours,

C. W. CANFIELD

(Editor of "The American Annual of Photography and Photographic Times Almanac.")

423, Broome Street, New York,  
November 6th, 1890.

\* The quotation will, perhaps, be recognised.



## POSITIVES AND NEGATIVES.

SIR,—In reply to "M. E.," I believe I am correct in saying that reversal is produced by the application of a very powerful developer to a much under-exposed plate. It may be, however, that the expression *reversal* would here be incorrect, and that the first image produced by the action of light is a positive one. Yours faithfully,

H. E.

\* \* \* \*

## SPECIAL RAILWAY FARES FOR PHOTOGRAPHERS.

SIR,—In your "Views" of November 14th you notify the receipt of a letter from the President of the West London Photographic Society setting forth the "desirability of getting special rates for photographers from railway companies." The object in question should be actively supported by all photographic societies.

I have already drawn attention to the matter in an article which appeared in your journal on June 27th last, wherein I suggested to "photographic societies the desirability of combining" to obtain a "reduction in fares to parties of photographers."

As it would be a Herculean task to organise a combination of all the societies in England and to attack all the railway companies at once, I would suggest that Mr. W. A. Brown should, to begin with, endeavour to obtain the co-operation of all those societies which are served by the Chatham, South-Eastern, and Brighton Companies, and try to get from these latter such concessions as will satisfy the requirements of amateurs living in the districts through which the above lines run.

The best way which occurs to me would be for Mr. Brown to formulate a draft proposal and submit it to all the societies concerned, for consideration. When the proposal has been finally approved and settled, each society should authorise its secretary to sign it, and append the number of members which his signature represents.

As president of a young but withal flourishing society, I have personally no spare time, or I would with pleasure give Mr. Brown active assistance in developing the scheme. But I am sure that the Croydon Camera Club will heartily approve and help forward any well-conceived project that may be initiated.—Yours, etc.,

H. MACLEAN.

November 10th, 1890.

SIR,—At a meeting of the Council of the West London Photographic Society held on Friday last, a discussion arose as to the desirability of getting special rates for photographers from the railway companies, when travelling for the purposes of the art, and I was requested as President of the above Society to write to you with a view of ventilating the subject.

It has been a practice for some time past for railway companies to grant special cheap tickets to bona-fide anglers. To obtain the privilege, all that is necessary is that the applicant for such a ticket should be a duly accredited member of an angling club, and have a pass or certificate to that effect issued by a central angling society. Anglers must carry a rod and the usual implements of the craft, and actually be on fishing bent. Anglers may go in bodies or singly, just as they please, and previous notice to the railway company is not necessary. I do not know the number of established angling clubs or the number of their members, but they are very numerous, and the cheap ticket is extensively patronised. I venture to think that photographers are an ever-increasing body, and as much entitled to the benefit of a cheap railway ticket as the angler. The anglers travel entirely for their own pleasure, while the photographers bring home pictures that afford pleasure to others besides themselves and by their publicity advertise the line of railway where they are taken. I believe cheap tickets are granted to photographers by some railways, but the privilege is considerably discounted by the fact that the travellers must go in bodies of not less than eight or ten, I believe, and must give some days' prior notice of their intentions. What I would suggest is, that all the leading photographic societies should combine in a representation to the railway companies on this matter. The West London Photographic Society would cordially co-operate with older societies who would take the matter up, or would, if supported and desired, approach the railway companies themselves in the common interests of their brother photographers.

Any information on the matter would be gratefully accepted

by myself or by our indefatigable Hon. Sec., Mr. John Hodges, 87, Chancery Lane, W.C.—Yours obediently,

WALTER ADAM BROWN

(President, West London Photographic Society).

55, Lincoln's Inn Fields, W.C.

\* \* \* \*

## FILMS FOR LANTERN SLIDES.

SIR,—Will you allow me to ask through the invaluable AMATEUR PHOTOGRAPHER, those who have been working with Carbutt's or other celluloid films, if they have tried to make lantern-slides with the transparent films. I do not see why they should not be almost as good as the glass ones. The plan I have adopted for keeping them flat in the lantern-slide holder is by taking two pieces of glass, making a hinge of linen by gumming a strip along one side, and putting the film in between them; they are kept quite flat by the holder. The convenience of having film slides is that in one of the small boxes holding a dozen of the lantern glass slides, one could put three of the above glass supports and quite twenty films. I shall be glad if any of your readers would give me their experiences.—Yours truly,

EDWARD BARNES

November 8th, 1890. (Late Captain, 27th Inniskillings).

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## LANTERN SLIDES.

SIR,—Is it not curious that in Messrs. Fry's excellent little book on "Lantern Slide Making," by Mr. A. R. Dresser, just published, no mention is made of that valuable developer Eikonogen? I thought to find the latest 'tips' concerning the above, and was disappointed that it has been completely ignored. I have found it a very excellent reducing agent for lantern work, save for its coldness in tone. Perhaps Mr. Dresser would not mind giving his experience with Eikonogen in your columns?

It seems to me also that amateurs will find the instructions for reducing from large plates to lantern size in the camera and by artificial light somewhat incomplete, particularly in regard to the proper illumination of negative and time for exposure.—Yours faithfully,

D. G. PINKNEY.

November 11th, 1890.

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## THOMAS'S PLATES.

SIR,—We cannot accept the wholesale condemnation of the working instructions issued with our lantern plates, contained in Mr. Haines's letter in your last issue. At the same time we are prepared to admit that they are capable of improvement; in fact, nothing but pressure of business has prevented the issue of a more detailed and exact method of procedure ere this, in which the magnesium light is made to supersede the naturally uncertain quantity—the gas flame. These instructions were in the hands of the printer before the appearance of Mr. Haines's letter. In defence of our late formula we assert that, with a brilliant negative of good printing density, and an exposure of thirty seconds at a distance of 12 in. from a batwing burner, consuming 9 ft. per hour of fairly good gas, lantern slides may be printed of a rich black tone and ample detail, with two minutes' development, using our pyro formula for dark tones. That Mr. Haines obtains dark tones by burning  $1\frac{1}{2}$  in. of magnesium ribbon at a distance of 1 ft. (if the class of negative is at all comparable with our standard) goes far to prove that which we claim—the enormous latitude of the plates, as this exposure is the near equivalent to twelve times our prescribed thirty seconds. Doubtless the chief defect in our instructions was giving the minimum exposure for black tones; had it been, say, the exposure for chocolate or red, probably less failures would have occurred. Also, we are now convinced that the magnesium light gives a vigour in the slide or transparency quite unobtainable by any modification of the exposure to the less actinic gas flame, and hence is very preferable.

Apologising for thus troubling you, we are, yours faithfully,

R. W. THOMAS AND Co., LD.

SIR,—I was much surprised to read the letter from Mr. Haines on the above plates. I have used them since July last, both for lantern and stereo slides, and have always found an exposure of 30 secs. at a distance of a foot from an ordinary gas burner, quite



sufficient for them. I have developed them with both pyro and hydroquinone, and have never once seen the "ghosts" your correspondent speaks of. I am speaking now of printing through negatives of ordinary density (that will give a good silver print). Of course, very dense negatives require longer, and thin ones shorter exposure. I have always found the instructions issued with them concise and to the point.—Yours truly,  
Stockton-on-Tees,  
November 14th, 1890.

A. H. APPLETON.

SIR,—I have used the above for some time, and have always had good results. The exposure given in the instructions issued, I soon found was insufficient, and I now burn an inch and a half of magnesium ribbon, varying the distance from frame according to the density of negative, and I generally manage to secure twelve fine slides from as many negatives.

I use developer as given with plates, but dilute one part of developer with one and a half parts of water, which brings up all without getting too dense.—Yours truly,  
November 17th, 1890.

ORWELL.

\* \* \* \*

#### STALE PLATES.

SIR,—I have read with great interest the recent letters in your valuable paper respecting stale plates, and have repeatedly been put to great inconvenience both by plates and bromide papers supplied to me by dealers, which have been so kept that they are quite useless. As a rule, I get my plates and papers direct from the manufacturers, and I have never had any fault to find with them when supplied in this way. I have kept plates in my own dark-room for over a year before I have used them, and they have turned out as good negatives as fresh plates. My belief is that the so-called stale plates and papers which we often, or I think I may say generally, get when we go to shops have not so often been kept a long time, but have been placed on damp shelves, and are frequently left in shop windows or on counters, where in such a changable climate as ours they are almost sure to get damp.

Could not something be done to induce dealers and others to keep plates and paper in air-tight boxes or tin cases? and of course it would be a great advantage if the date of manufacture of all plates and bromide papers were stamped on the packages.—Yours truly,  
November 15th, 1890.

J. MEDLEY WOOD.

SIR,—I exposed some Edwards' Isochromatic quarter-plates in August, 1888. These plates were returned to their grooved box, and have since stood a certain amount of travelling and knocking about. I had forgotten all about them.

The correspondence in your columns concerning "stale plates" reminded me of their existence, and the other day, on the 10th of November, 1890, I developed the dozen with eikonogen. This was two years and three months after exposure, and two years and nine months after purchase.

The three proofs I enclose, mere ordinary amateur work, are sufficient, I think, to show that the plates had not suffered at all.

This not only proves the keeping qualities of really good plates, but seems an argument in favour of Edwards' grooved boxes, so much abused by some of your readers a few weeks ago.—Yours faithfully,  
HOUSTON S. CHAMBERLAIN.

1, Blumelgasse, Vienna,  
Nov. 16th, 1890.

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#### LANTERN SHOWS FOR CHARITABLE PURPOSES.

SIR,—On behalf of the society, I beg to offer you our best thanks for the very kind notice which you gave in your last issue but one respecting our exhibitions for charitable purposes. We have made several offers to give them, and in each case they have been most gladly accepted, our only difficulty is in the matter of slides. Being a young society we have not yet got together a large set of slides, and we wish, if possible, to make a little variety. If any societies or amateurs are disposed to lend us slides for charitable exhibitions, we shall be very glad if they would communicate either with Mr. F. C. Powell or myself.—Yours, etc.,  
J. F. HEWITT.

35, Market Place, Burslem, Nov. 17th, 1890.

#### SOCIETY FOR DOUGLAS.

SIR,—An amateur photographic society has been formed in this town in connection with the St. Thomas's Church Guild. The Society has been named the "Douglas (Isle of Man) Amateur Photographic Society." Mr. J. M. Nicholson, St. Thomas's Walk, Douglas, was elected President, and myself Hon. Secretary.

I have been requested by my Committee to ask you to give publicity to the formation of our Society in a paragraph in your esteemed paper, and also to add the name of the Society, and its above described officers, to your list of amateur photographic societies.—Yours truly,  
R. W. KILLEY.

16, Sydney Street, Douglas, Isle of Man,  
November 11th, 1890.

### Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

#### CHAPTER VII.

##### SOME ACHIEVEMENTS IN INSTANTANEOUS PHOTOGRAPHY ON GELATINE PLATES.

*Gale Photographs a Swallow on the Wing.*—The Annual Exhibition in Pall Mall, of the Photographic Society, includes, practically, for each year a'l the new work and all the best work; and hence it is that we turn with special interest to the account of the Exhibition for 1879—the first year after gelatine dry plates had really impressed themselves upon the photographic world. It is at once remarked\* that "instantaneous work, both in landscapes and portraits, occupies a more prominent position than in former years—a fact which is undoubtedly to be traced to the introduction of gelatine plates into general use." One picture, in this exhibition, which created a real sensation, was Mr. J. Gale's famous "Swallow" picture. "Over a pool in the foreground a solitary swallow was flying when the landscape was photographed, and the image of the bird and its shadow just beneath have both been secured without the slightest blur or faintness to show that they were swiftly moving when the likeness was taken."†

*Marsh Brothers Photograph the Swans at Henley-on-Thames.*—The instantaneous pictures which caused most sensation during the year 1880 were the photographs of swans on the Thames by Messrs. Marsh. "The life and animation of the birds, their firm, snowy plumage, and, above all, the troubled motion of the water upon which they moved, make up a picture that for truth and brightness is unrivalled. The water alone is a study; its surface, while smooth as a mirror, is broken into eddies by the quick-turning swans, and hence there is that vivid appearance of molten metal upon the pool which constitutes one of the principal charms of the picture; there are, indeed, patches of iridescence upon the liquid surface, and in one place, where a drop of water has fallen from the swan's bill, a series of tiny circles mark the spot. Altogether the scene is a triumph of photography and happy artistic rendering"‡

The shutter used was a card-board revolving disc, pierced by a hole, and moved by rubber bands. We have had "swan pictures" by scores since 1880; but Messrs. Marsh have the credit of producing "the first good one."

*Muybridge, in America, Photographs and Reproduces the Movements of Animals in Motion.*—In 1877 Mr. Edward J. Muybridge—then a professional photographer of San

\* *British Journal of Photography* for 10th October, 1878, p. 479

† *Daily News*, October, 1879.

‡ *Photographic News*, 8th October, 1880.



Francisco—was induced by Governor Stanford\* to attempt to photograph his famous trotter, "Occident," when going at full speed. The work was done on wet collodion plates, and although little more than black silhouettes were obtained, yet they were sufficient to show that many of the positions assumed by an animal in rapid motion are never seen by the unaided human eye. They also proved the fact—as to which much controversy had taken place—that a trotting horse at one point of its motion has all its four feet off the ground at the same time.

The superior sensitiveness of gelatine dry plates naturally gave a great impetus to Muybridge's work, and in 1880† he began to record the motions of many species of quadrupeds, birds, etc., under the auspices of the University of Pennsylvania. To give one example only—"Muybridge's pictures of the flight of the white cockatoo are most remarkable. The most striking position of the wings is when they are just finishing the downward stroke, a position the Japanese artists are very fond of painting, and in which the Egyptians always represented the sacred hawk. Just as the downward stroke is finished, it is an interesting fact (known only by the photographs obtained) that the feathers rotate simultaneously and present only their edges to the resisting air until the upward stroke is finished, when they overlap again to give the fullest effect to the downward stroke." In boating parlance, the photographs proved that the cockatoo "feathers its feathers." He continued this work for six years at an expense of several thousands of pounds, and the results are now being published in an album which costs £100, and to which many public institutions both in Europe and America have subscribed. Muybridge employed batteries of twelve, twenty-four, and even forty-eight cameras, so as to obtain an almost continuous and complete record of the various phases of motion, and he estimates that some of his exposures occupied but the five-thousandth part of a second.

In lectures‡ upon the subject, delivered both in the States and in England, Muybridge reproduces the motion of animals by means of the zoopraxiscope, which is an adaptation of the zoetrope to the lantern. He lays much stress on the incorrectness with which artists have in their paintings depicted the motions of the horse, etc.

Marey, in France, studies *Physiological and other Scientific Problems by the aid of Instantaneous Photography*.—Stimulated by specimens of the work done by Muybridge in America, the distinguished French physiologist—Professor Marey—designed his "photographic gun"§ in 1882, in order to study the flight of birds. This instrument gave twelve exposures in one second, the duration of each exposure being  $\frac{1}{120}$  of a second. Marey also analysed—by means of instantaneous photographs—the movements of the human body when walking, running, or jumping.|| Much of his success has been due to the use of a perfectly black background, obtained by digging out a deep cave in a hill-side; lining the interior of the cave with black velvet, and then photographing the moving object as it passed in front of the black surface so obtained. This was the suggestion of Professor Chevreul, and the background so obtained is consequently known as "Chevreul's black." In 1884 Marey published a description of his work under the title of "*Développement de la Méthode Graphique par l'Emploi de la Photographie*."

(To be continued.)

## The Stereoscope.—XIII.

BY VALENTINE BLANCHARD.

If the transparent glass slides are to be backed up with ground glass, it will be important to select the very finest kind; the ordinary ground glass of commerce will not do at all, for it is much too rough. The acid-flashed glass used for focussing screens will answer perfectly.

The plan adopted by Ferrier was to employ masks in printing, so that the picture was bounded by clear glass. It became necessary, therefore, to invert the picture in the copying camera—that is to say, the back of the negative was offered to the lenses instead of the front, so that, when looking at the film side of the transparency made under these circumstances, the same order of inversion as in the negative would present itself. By placing the film next the ground glass and binding the two together, it would be found, however, on looking through the back of the transparency, that the correct relation had been restored.

Ferrier's method is, of course, the simplest of all, for no mounts are needed. The amount of subject to be seen is determined by the mask put over the negative in the copying camera, and when the transparency and ground glass are bound together the picture is complete.

The illusion is more perfect, however, when an opaque mount is used to frame the picture, and if this plan be adopted, there is then no necessity to use masks on the negatives in printing, and the film side should be offered to the lenses. In this case the film had better be varnished with a thin matt varnish, and after laying over the picture a suitable mask, plain glass must be used to protect it from injury, and the two glasses bound together in the way usual with lantern slides. Of course, neither ground glass nor matt varnish are absolutely necessary; for all that is needed in order to secure perfect illumination of the subject is to reflect uniform light through the picture, and this can be done in a very simple manner by a well-illuminated sheet of white paper. Still, there is no doubt that the most harmonious effect is produced by the employment of fine ground glass, or matt varnish to simulate it; and the forming of a vista—so to speak—by the employment of the opaque mask.

Mr. Traill Taylor suggests collodion, containing in suspension very finely-sifted carbonate of lead, as a matt varnish. I have never tried it, but have no doubt it would answer perfectly. He recommends a rather thick collodion, and about as much of the carbonate as would lie on the blade of a penknife to each ounce. The addition of four drops of castor oil and about a dram of Canada balsam he considers an improvement.

The very finest matt varnish I have ever employed was made by adding a solution of white wax in benzole to amber varnish. I really do not know if this varnish is still made, but there is really no difficulty in its preparation. It is simply amber dissolved in methylated chloroform. The matt varnish prepared as above has no granular appearance whatever. When applied to the transparency—which must be done quickly in a cool place and away from any draught, for, from the volatile nature of the chloroform, the evaporation is very rapid indeed—the film rapidly assumes a semi-transparent appearance, not unlike the best ground glass, but without any structure whatever. The manufacture of this varnish is quite worthy the attention of dealers, for it is by far the best for transparencies of any that I have seen. It is so many years since I made any that I have forgotten the proportions, but a few experiments would soon bring about a satisfactory result.

\* *Photographic News* for 1877, p. 455.

† *Ibid.* for 1885, p. 583.

‡ See *British Journal of Photography* for December 20, 1889, p. 826.

§ This is figured and described in the *Photographic News* for 26th May, 1882, p. 289.

|| *Photographic News* for 1883, pp. 469, 626.



If the finished picture—no matter whether transparency or paper print—is not carefully gauged so that each half is identical in position, failure must result, for the effect in the stereoscope will not be perfect; therefore it becomes imperative to be most painstaking in making the adjustments. One of the commonest defects in all stereoscopic slides that occasionally come under notice is to see a church tower striving to emulate the celebrated campanile of Pisa, but when the tower in each half of the stereo takes a different direction, and each inclines towards its neighbour as though seeking mutual support, the effect is very groggy indeed. Of course, it is quite impossible to get stereoscopic effect from such an example. In another, one sees a difference in the amount of foreground in each half of the slide. In a marine subject the sea occasionally runs uphill. A mention of these very common faults in mounting will, it is hoped, put the worker on his guard to look out for others not quite so obvious.

In viewing the picture in a stereoscope made with half lenses, it will be noticed that the marginal lines of the picture are not quite straight, but take a slightly cushion shape. Mr. Traill Taylor, whose optical knowledge is well known, takes advantage of this optical defect as a plea for the use of single lenses in making the stereoscopic negatives, for their defect in giving a slightly barrel form to the marginal lines is thus cured. His remarks are so thoroughly to the purpose that I cannot do better than give them here:—"It may doubtless create some surprise at first sight if I assert that single, or distorting lenses, in contradistinction to compound ones giving perfect rectilinearity of projection, are best adapted for stereoscopic cameras. But this surprise will cease when I explain that a perfectly rectilinear photograph becomes distorted when viewed through the eye-pieces of the stereoscope, and that such distortion increases in proportion to the strength or magnifying power of the eye-pieces, whence it follows that the modicum of distortion shown by a slight curving inwards of vertical lines in the margin, which are straight in nature, is counterbalanced by the distortion in the opposite direction which is produced by the eye-pieces of the stereoscope, the result being that the picture is seen free from all distortion. It is only in extreme cases, however, when lenses of very short focus are employed in either instance, that distortion will be present in such a degree as to be appreciated, and then only when the subject is an architectural one, the vertical lines of which are brought close to the margin of the plate, and then the instrument through which it is viewed effects a perfect cure. I am far from contending that combination, or non-distorting lenses of the higher class, are unsuitable for stereoscopic work, but only that they are less perfectly adapted for it if the eye-pieces of the stereoscope are powerful." Most eyes are ready to make up as far as possible for any shortcoming in the optical instrument employed, but this is always at the expense of considerable strain upon their powers. I have just been examining a cheap stereoscope that did not perform properly, and found on examining the lenses that one was slightly different in focus to the other; by separating them a little more, the instrument was made to do its work properly.

There is no doubt that, notwithstanding this adaptability of the eyes, it is most important that, if the stereoscope is once more to become a popular instrument, everything should be done to avoid the faults of the old instruments, and the old methods of working. The reader is therefore desired to carefully dwell upon what has been written above. Perfect success can only come from attention to trifles, and success itself is no trifle.

(To be continued.)

## Photographic Optics.

By C. J. LEAPER.

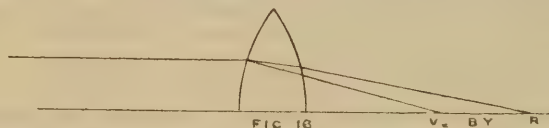
(Continued from page 222.)

### CHAPTER IV.

*Defects of Simple Lenses—The Coloured Image—Chromatic Aberration and Achromatism—The Indistinct Image—Spherical Aberration and Aplanatism—The Distorted Image—Longitudinal and Lateral Distortion—Non-distorting Lenses—Curvature of the Field—Depth of Focus—Precautions to be Observed in Focussing.*

SINCE a bi-convex lens is, to all intents and purposes, two prisms placed base to base, it follows that a ray of white light will, in passing through it, suffer more or less dispersion or be resolved into its primary colours, and what is true of a ray of white light will also be true of the image of an object reflecting more or less white light. A large lens, such as those employed for graphoscopes, will serve to experiment with. If such a lens is used to examine a brilliantly-lit object, an image of the latter more or less fringed with colour will be seen, particularly if the image is viewed through the margins of the lens. This inability of a simple lens to give an image free from colour is said to be due to its chromatic aberration.

Now, the spectral rays do not all possess the same refrangibility. The violet, being most refrangible, will come to a focus at  $v$  (fig. 16), and the red at  $r$ , the other rays occupying



intermediate positions. When focussing the image we naturally focus the yellow rays, as they are visually brightest. But the blue rays, in which, broadly speaking, the greatest photogenic activity resides, will form a focus in front, and assuming the yellow rays to be incapable of affecting our plate, the resulting negative would very evidently be wanting in sharpness.

We can achromatise a bi-convex simple lens for rays of a given incidence by cementing to it a bi-concave of a different material and angle, this latter being chosen so that the two lenses give the same dispersion but a different deviation. This is quite possible, owing to the fact that deviation is not proportionate to dispersion. In fig. 17 we have a

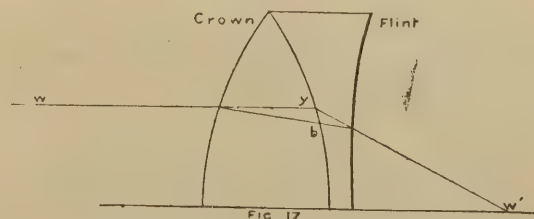


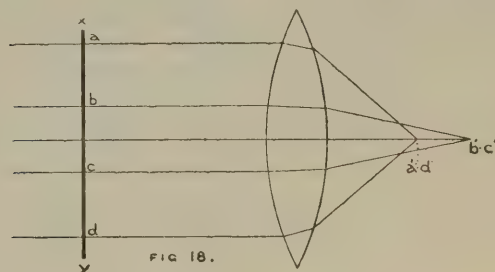
diagram of one type of achromatic single lens, made by cementing a biconvex lens of crown glass to a biconcave lens of flint. Here the ray of white light  $w$ , is dispersed by the crown glass, but since the dispersion of the flint-glass lens is the same, whilst its deviation is different, the resulting rays are caused to coalesce and form a colourless image at  $w'$ . Evidently dispersion can only be corrected for any two spectrum rays, and as the maximum photogenic activity resides in the blue, and the maximum visual activity in the yellow, these are always the rays chosen for achromatising photographic lenses.

If our graphoscope lens were pointed at a broomstick



placed upright, and so arranged that a plane passing through the broomstick would cut the lens into two symmetrical halves, an eye suitably placed at the opposite side of the lens would perceive an inverted image which, if distinct at the upper portions, would be indistinct at the lower portions, or *vice versa*. This want of all round distinctness is said to be due to spherical aberration, and its cause is readily understood. In the preceding chapter we have assumed for the sake of simplicity, that all rays, whether passing through the axis or margins of the lens, will cross each other so as to form an image on a *plane* situated behind the lens. This is not, however, strictly true.

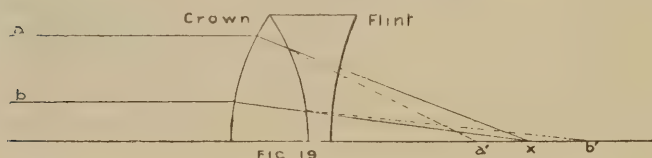
In fig. 18 let  $a b c d$  represent four rays reflected



from the broomstick. The rays  $a d$  pass through the margins of the lens, whilst the rays  $b c$  pass nearer its axis. Consequently the former will be more bent than the latter, and will form an image  $a' d'$  nearer to the lens than the image  $b' c'$  formed by the axial rays. Both pairs of rays cannot consequently be received on the same plane.

A consideration of the figure will explain why one method of securing the necessary sharpness, viz., stopping down the lens, answers the purpose. By so doing we prevent the margins of the lens from being utilised at all, and we consequently equalise the degree of bending which the top and bottom rays undergo.

An achromatic lens will necessarily possess less spherical aberration than a simple lens of the same degree of curvature. Let fig. 19 represent such an achromatic lens.



Then it is clear that, owing to the flint-glass biconcave lens bending the rays in the opposite sense to the way they are bent in the biconvex crown-glass lens, the point  $a'$  will advance to  $x$ , and the point  $b'$  recede to approximately the same position.

In practice the curves of the two or more lenses used in photographic objectives are always so chosen as to correct chromatic aberration completely, this being a far more important matter than the correction of spherical aberration.

In the better class of lenses, spherical aberration is completely corrected at the same time, in which case the lens will give with full aperture a perfectly sharp image of a surface situated parallel to the plane of the ground glass.

In inferior lenses a residuum of spherical aberration is left, to correct which a small stop must be employed.

Scientifically speaking, the term *aplanatism* is used to denote the correction of spherical aberration, whether effected by stops or by combinations of lenses, just as *achromatism* means the correction of chromatic aberration. In practical photography, however, the term *aplanatism*

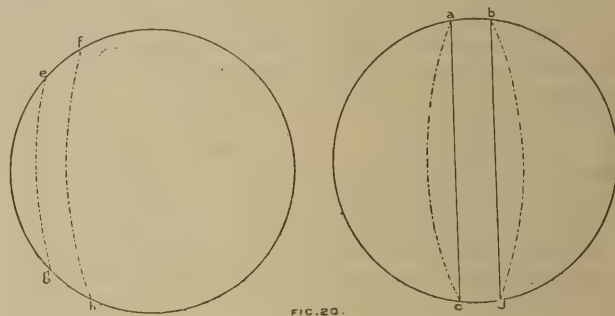
is used in a somewhat different sense, an *aplanatic lens* being one free from spherical aberration *when used with full aperture*, a non-aplanatic lens meaning an instrument in which spherical aberration is absent only when the lens is more or less stopped down.

Reverting again to our graphoscope lens and the broom-handle, it will be found that the image seen by the eye is thicker at the centre than at the margins when viewed through the centre of the lens, but if the latter be moved right or left the extra thickness at the centre will disappear, the image now appearing bent in the same direction as that of the margins of the lens itself.

With the lens in the position  $a b c d$  (fig. 20), the broom handle will appear like the dotted lines, but when the lens is moved to the left, an image shaped like  $e f g h$  will be perceived.

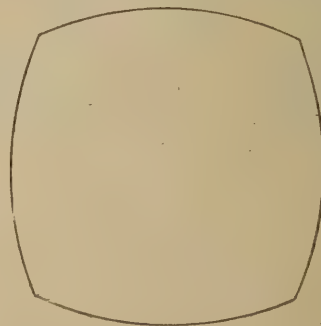
And if a square be viewed through such a lens the sides will appear bent outwards, as the next diagram (fig. 21) shows.

A simple lens gives, in fact, a distorted image. This distortion may be either longitudinal or lateral. The broom handle in fig. 20 is, when viewed through the centre of the lens, longitudinally distorted, when viewed through the margins laterally distorted. In the former case the distortion is due to the upper portions of the image of the



broom handle coming to a focus nearer the lens than the central portions, and appearing, therefore, relatively smaller. In the latter case the effect is due to a different cause.

Let us consider longitudinal distortion first. This is the result of the spherical aberration of the graphoscope lens, and clearly whatever corrects spherical aberration will also correct it. For since in an aplanatic lens the axial rays are bent as much forwards as the marginal rays are bent backwards, it is plain that the larger image of the centre of the broom handle will in such a lens be moved into a plane coinciding with that on which the smaller image of the extremities of the broom handle are depicted. And since



both images are now formed on the same plane they must necessarily be of the same size.

It is otherwise, however, with the lateral distortion. As



the lens is moved, say, from right to left, the upper and lower portions of the image, being more bent than the centre, travel at a less rapid rate, with the result that when the lens is to the left the extremities of the image are, relatively to the centre, more to the right, and the entire broom handle seems curved in the same sense as the lens itself.

This is, clearly, quite independent of spherical aberration, depending as it does upon the different degrees of displacement given to different portions of the image as the lens is moved.

The direction in which lateral distortion occurs—*i.e.*, whether the image will be bent in the same direction as, or in the opposite direction of, the lens—will vary with the position of the stop.

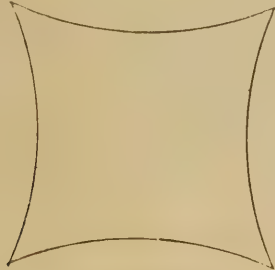


FIG. 22

With the stop in front, as with no stop at all, it is the lower portions of the lens which form the image of the upper portions of the broom handle, and *vice versa*; when the stop is behind, it is just the reverse, the two upper segments of the lens now forming the image of the two upper portions of the broom handle, with the result that the distortion is reversed.

If a square be caused to form an angle by means of such a lens, with the stop placed behind, the corners will appear curved outwardly (fig. 22), instead of inwardly, as formerly.

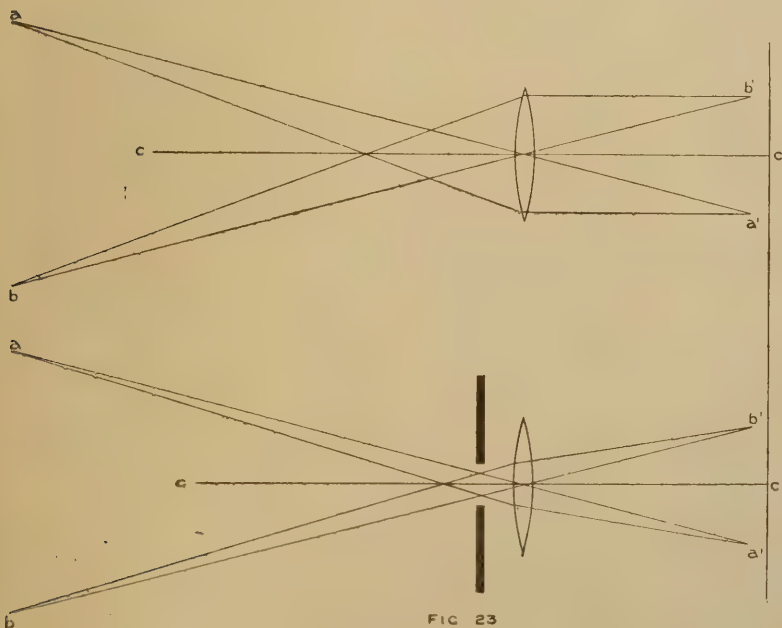


FIG. 23

A knowledge of this fact enables us to understand the simplest manner of constructing a non-distorting lens, *viz.*, by placing a stop between a pair of lenses. Such a combination is termed a doublet, to distinguish it from single lenses consisting of one or more glasses cemented together.

A single aplanatic and achromatic lens, or doublet, would be found, if pointed full aperture towards a landscape, to give images which, although perfectly sharp in the one plane focussed for, would nevertheless be deficient in sharpness in every other plane.

The reason is almost self-evident. Objects situated in different planes in front of the lens should be received, theoretically, at least, on different planes behind the lens, the nearer plane behind receiving the image of the more distant plane in front, and *vice versa*.

This is called curvature of the field, meaning, that since the field of view is itself curved, the law of conjugate foci demands a correspondingly curved field upon which to receive it. Since it is impracticable to employ curved plates, and since, moreover, their curvature would have to constantly vary to suit that of each particular view, we have to seek for other means to correct this defect inherent in all lenses.

Fortunately, the stop improves the definition sufficiently for all practical purposes, and the reason is shown in figure 23. Let *a b* represent the extremities, and *c* the central portion of a landscape. Then with no stop in the lens the image of *c* is received on the ground-glass at *c'*, the images of *b'* and *a'* will be formed very much in front, and consequently out of focus.

But if a stop is inserted, the rays from *a* and *b* being now constrained to pass through the centre of the lens, where they are necessarily less bent than at the margins, will reproduce images of the two points further back, that is, nearer the ground-glass, and the definition will consequently be improved. The function of the stop in aplanatic lenses is, then, to secure depth of focus, as it is called, by causing objects situated in different planes to form images in approximately the same plane at the other side of the lens.

We will conclude this outline of photographic optics by alluding to the custom of focussing a view with the largest stop or no stop at all, and then inserting the stop it is intended to use.

Let us suppose that in a particular landscape we focus for a near object, so situated that the rays proceeding from it are nearly at right angles to the lens. Then the insertion of a smaller stop cannot alter the focus of these axial rays, but will cause the marginal rays proceeding from distant objects to cross at a shorter distance from the ground glass. So that on the whole the definition will be improved. But if the object of interest was so situated that its rays passed marginally through the lens, and we focussed for it with a large stop, and then inserted a small one with a view of improving the definition, it is clear that instead of mending matters we should positively make them worse, because the stop would cause the rays proceeding from the object to form an image nearer the ground-glass, and consequently out of focus, without at the same time improving in the slightest degree the definition on the central portions of the plate.

It is well, therefore, to make it an invariable rule to focus with the stop it is intended to employ. If the object of interest is situated axially, this method of procedure cannot throw it out of focus, and will improve the focus of the distant portions of the landscape.

If the object is situated marginally, any other method of procedure will be certain to do more or less harm, so far, at least, as the definition of the object of interest is concerned.



## Science Notes.

Not the least important part of the work of the County Photo-Surveys, such as has been lately instituted in Warwickshire, must be the recording of curious old customs, which will probably die out before many years are over. As an example, we have the "quaint custom, dating back to Anglo-Saxon times, known as payment of 'wrath silver,' which was recently observed at Knightlow Hill, a tumulus between Rugby and Coventry. It consists of tribute payable by certain parishes in Warwickshire to the Duke of Buccleuch. The silver has to be deposited at day-break in a hollow stone by representatives of the parishes, the penalty for default being forfeiture of a white bull with a red nose and ears. The representatives afterwards dined together at the Duke's expense."

The subject of the "soaring" of birds has always attracted much discussion among scientific men. By "soaring" is here meant the power of a bird to float at a constant height without movement of the wing. Mr. Guthrie writes to *Nature* (Nov. 6th) that he has seen an albatross follow a ship for eleven minutes "without flapping a wing;" to this another correspondent replies (Nov. 13th), asking whether birds "do not soar at all in the true sense, but only seem to soar because the movement of the wings is too rapid for our imperfect eyes to detect? Is it not possible that birds, which to our eyes seem to soar, would betray themselves to the camera? Is it not also possible that in some cases the motion may be too rapid to be discovered even by photography?" To this we can only say that we believe there is no movement made naturally by any animal which it is not within the power of photography to depict.

Occasionally the camera may be useful because of its inability to photograph "what isn't there." One of the most famous tricks of the Indian jugglers is to throw one end of a piece of string high into the air. A boy then climbs up this string, and is lost sight of in the air! Quite recently a performance of this kind was photographed with a hand-camera, but when the plates were developed the boy simply "wasn't there." If this be correct, it shows that the trick depends on the power of the juggler to hypnotise his audience, and so to make them see what he suggests to them, but which does not actually take place.

I must apologise to Messrs. Cross and Bevan for not bracketing their names with that of Mr. Green, as the inventors of the diazotype process; but I am glad it has led them to put on record a full statement of the facts. I regret very much, however, to hear that they are charging a fee for the right to practice the process, as it is quite certain that all payments for "licences" to do this or that are simply hindrances in the path of progress. The Platinotype Company has seen this, and has wisely withdrawn the demand for "licence-money." No one can grumble at the materials being sold at such a price as will yield a fair profit to the patentees; and it is to be hoped that Messrs. Green, Cross, and Bevan will adopt this plan. F. G. S.

## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

ON Thursday, November 13th, Mr. Bevan gave a description and demonstration of Messrs. Green, Cross, and Bevan's Primuline or Diazotype printing process. Capt. Abney occupied the chair.

Previous to the lecture the Hon. Secretary handed round a photograph on a gelatine dry plate in colours, the work of Mr. Wormald, jun., of Sutton. The colour photograph had been printed from a chromatope, and showed the design in fairly bright blue, red, and yellow, with a certain amount of fog throughout. Mr. Wormald had stated that he had also secured green, and hoped to get over the fogging effect and to quicken the printing, which had taken about one and a-half hours in sunlight. Captain Abney pointed out that there was nothing new in the production. He had often obtained the same results, and the colours would be found to fade.

Mr. Clark said that the picture appeared to him to have faded in the few days since he first saw it, the plate having in the meantime been exposed for two days to such daylight as they had enjoyed.

Dr. Patterson then exhibited a very useful lantern-slide printing frame introduced by the Platinotype Company, and Mr. Corbould showed and described very effectively Hume's Cantilever enlarging apparatus.

Mr. Bevan then fully described and demonstrated the Primuline process of printing, illustrating his remarks throughout with many examples. Taking materials dyed yellow with Primuline, he treated them with the diazotyping solution, and then showed the process of developing to various colours by treating with certain chemical solutions fabrics which had been printed in pattern from positives, either ferns laid down upon the sensitised surface, or geometrical designs from transparencies. Examples in purple, and brown, and blue were developed. Specimens on films and gelatine negatives were also shown. Divergent substances had little or no effect on the colours. The process could be used with advantage instead of blue printing, the ferro-prussiate process. The sensitiveness was somewhat greater than with albumenised silver paper. In regard to the action of light and the class of light which acted with most intensity on the sensitive surface, Mr. Bevan stated that the image showed almost as plainly on the side of the fabric away from the sensitive surface as on that next to it, and also that the image showed even through six thicknesses of the material printed together.

A long string of questions was then put to Mr. Bevan, and remarks made by Captain Abney, Messrs. Elder, Davison, Kapteyn, Corbould, Maskell, Lambert, Humphery, Dallmeyer, Cliff, and Dr. Patterson. A vote of thanks to the lecturer was carried by acclamation.

On Thursday, November 27th, a lantern exhibition will be given.

## Exhibitions.

### EXHIBITION OF PHOTOGRAPHY IN EDINBURGH.

The Edinburgh Photographic Society, founded in 1861 "for the purpose of disseminating a knowledge of the practice of photography, and to discuss among its members whatever in science or in art may be communicated," are to be congratulated upon the energy and spirit which they have shown in organising the exhibition which was opened on Friday last by a reception in the Royal Scottish Academy galleries.

Only the briefest sketch can now be given of the contents of the several galleries, which contain about 1,200 works. In the first room are most of the examples of early processes of photography. Included among these are several frames of portraits—callotypes—lent by Mrs. D. O. Hill, which are not only interesting as illustrating this technical process, but on account of the subjects, many of the persons whose portraits appear having been famous in their day in art, science, or literature. There are also examples of glass positives, of collodion, portraits on leather, and prints on albumenised paper, which have preserved their colour in a wonderful way. Mr. Alex. Inglis, Calton Hill, exhibits a valuable frame of collodion negatives of views of Old Edinburgh. One notes also in this room a portrait of M. Daguerre, and side by side also the art examples of celestial photography by Mr. Peck, who shows a number of fine views of the moon; of micro-photography—the photography of the bacilli of various diseases, vitreous enamels, very soft and beautiful, by Messrs. Tunny. To many the photographs of wild animals by Mr. Gambier Bolton, London, will have much interest. The second room is hung with a general collection of portraits and landscapes, among which may be specially noted a number of platinum prints by Mr. Ayton; work by the Autotype Company, London; studies of Lyceum actors and actresses, by Messrs. Window and Grove, London; several opal enlargements by the President (Mr. Hippolyte Blanc); two remarkably pleasing pictures printed in sepia, "Auntie's Pet" and "I'm smoking, you see," by Mr. J. Moffat; a seascape, showing the "Rock-beaten surf," by Mr. Worsley Benison, Chepstow; and an interesting frame of groups taken by Mr. R. Slingsby, Lincoln, by magnesium flash-lamps. In the central gallery a splendid show is made by Mr. Crooke, Edinburgh. Included among his work are platinotype portraits of the Judges of the Court of Session—truthful as likenesses, and soft and rich in tone.

On the opposite wall, Mr. Marshall Wane has also a most attractive display of high-class work—one, a large-sized platino



type portrait, being one of the most charming pictures in the exhibition. There are delightful examples of landscape work in this room, notable among which are pictures by Mr. A. Court Cole and Mr. R. H. Lord. In the fourth room the exhibits partake of the same general character. Here may be seen a frame of agreeable landscapes, with figures, by the Vice-President (Dr. Drinkwater). Cathedral interiors by Mr. D. T. J. English. Colonel W. L. Noverre exhibits three beautiful silver-prints on rough drawing-paper, notable for their atmospheric effects; and Mr. H. P. Robinson has many landscapes. In this room are attractive female heads by Messrs. Tunny and Co. Messrs. Jamieson and Co. are represented both here and in the last room by portraits of an artistic nature. In the top room special attention is attracted by specimens of diazotype printing by Messrs. Green, Cross, and Bevan. The prints by Messrs. Waterston in photo-lithography and chromo-lithography to illustrate coloured book-bindings are interesting; and another exhibit which may be specially mentioned here is the series of photogravure reproductions by Messrs. Annan, Glasgow, of pictures by Raeburn, which have just been published by the Fine Art Association. Apparatus and chemicals are exhibited in cases erected upon tables in the centre of the room. The rooms are very chastely decorated with hangings of suitable colours, amid which appear on scrolls the names of pioneers and notable workers in the photographic art. The scheme of the exhibition, includes a series of popular lectures on photography, which will be given every Friday night during the course of the two months the galleries remain open.

#### THE OPENING CEREMONY.

Notwithstanding the wet evening, there was a large and brilliant gathering. There was no formal reception, but about nine o'clock, after all the company had gathered, Lord Provost Boyd and the President and Council of the Edinburgh Photographic Society appeared on a platform in the central octagon. Mr. Hippolyte Blanc, the President, introducing the Lord Provost, said the Edinburgh Photographic Society numbered 400 members, and had existed for about 30 years. In 1876 the Society ventured a similar exhibition, but under much less favourable circumstances. Photography was then only at its dawn. It was chiefly a photography of portraiture. Now they had its application in every field of art, literature, and science. The exhibition would not merely be a show place, but an educative institution. Lectures would be delivered by well qualified gentlemen. The Lord Provost was then presented with a copy of the catalogue, and two season tickets printed in gold for himself and Mrs. Boyd.

The Lord Provost expressed the great pleasure he felt in assisting in such a ceremony. He had been told that there were about 1,200 frames in the Exhibition, and as many of the frames included a large number of specimens, the display, it would be seen, embraced a collection indicative of much labour and industry on the part of those who practised photography. They had to thank the Committee for the way in which the photographs had been hung, showing the progress which the art had made from the beginning. After referring to the pleasure which, as a recreation, photography gave, he said they had far more to expect from photography in the future than they had to congratulate themselves on receiving in the past. It was hoped that they might some day be able to photograph colour as well as form, but in the meantime they might congratulate themselves that so much had been done.

Dr. Drinkwater proposed a vote of thanks to the Lord Provost. The string band of the Cameron Highlanders was in attendance.

## Apparatus.

### A COPYING, ENLARGING, AND REDUCING APPARATUS.

MR. H. RANSOM, of 122, Newington Butts, S.E., has shown us a new form of apparatus for copying, enlarging, and reducing, which possesses several new features which will recommend it to practical workers. It consists of a table, supporting at one end an easel, which is moved backward or forward by a fine rack and pinion adjustment, thus enabling a very fine focus being quickly obtained. The front of the camera has a rising and falling motion, and the camera is divided by a board for the purpose of receiving the lens in either position so as to enable it to be used for reducing or enlarging, which board is again provided

with a rack and pinion. The dark slide is so fitted that any size plate can be used without the necessity of using carriers. The apparatus is made in three sizes, viz., half-plate and under, 10 by 8 and under, and 15 by 12, the table extending in each case to 39 inches, 49 inches, and 72 inches respectively; notwithstanding this, the whole thing is extremely portable, and folds up in a convenient way into about 6 inches, and last, but not least, there are no loose screws.

Mr. Ransom also showed us some samples of very fine ground glass, with clear centres, thus supplying amateurs at once with the necessary screen for use with a compound focuser, though Mr. Ransom also supplies a special form of non-inverting eyepiece, which may be used as a telescope, and thus enable the camera to form another useful adjunct to the tourist's outfit. Another neat little arrangement was a ground-glass cap, or rather an ordinary cap provided with a ground screen, with which to give a supplementary exposure. Some negatives we have seen exposed in this way certainly are a strong recommendation for the use of this little arrangement.

### POWELL'S COMPRESSED HYDROQUINONE DEVELOPERS.

MR. J. H. POWELL, of 116, Denmark Hill, S.E., whose ordinary developer we noticed last week, has sent us a sample of his "Rapid" hydroquinone developer. We have tried the developer against pyro and a private formula we use, and find that the developer is exceedingly energetic, and yet by not using too much of the second solution, and not forcing too much, the results are excellent, and possess a very good gradation, and quite equal to those obtained with the developer noticed last week, and the results are difficult to distinguish from those obtained from pyro. The special advantages of this form of developer are, first, its extreme portability; secondly, its reliability, as the method employed in preparation is one likely to yield a stable result, and, thirdly, its cheapness, as a shilling bottle will make over half a gallon of developer.

## Notes from the Liverpool Centre.

(By our District Editor.)

A MODERATE number of members attended at the annual meeting of the Birkenhead Photographic Association, held on Thursday last week. Mr. George E. Thompson was elected President of the Society; Mr. G. A. Carruthers, Vice-President; Mr. H. B. Millar, Treasurer; and Mr. C. B. Reader, re-elected, Secretary. The Society is now some 108 strong, and the executive look forward to a prosperous session. Last Thursday the results in the annual prize competitions were announced.

Mr. H. Wilkinson took two prizes:—

(1) Class A.—Silver medal. For the best set of six pictures, irrespective of subject, for sizes over half-plate and under, from negatives taken during 1890.

(2) Class C.—Bronze medal. For the best set of six instantaneous pictures, irrespective of subject or size, from negatives taken during 1890.

Mr. W. Tomkinson took one prize in:—

Class E.—Bronze Medal. For the best enlargement, to be made not less than three times the area of negative.

Mr. G. A. Carruthers also took one prize in:—

Class B.—Silver medal. For the best set of six pictures, irrespective of subject, for sizes half-plate and under, from negatives taken during 1890.

The awards in Classes D and F for stereoscopic pictures and lantern slides respectively, were held over until the December meeting for the lantern slide and stereoscopic general competition.

With the advent of winter, the meetings of societies in this district show largely increased attendances all round. A coffee meeting of upwards of thirty members is the average every Wednesday at the Liverpool Rooms. At the coffee meeting here last week, the probable effect of new brand of plates shortly to be put upon the market was the chief topic of discussion.

There is nothing apropos of the moment to chronicle with regard to the Liverpool (1891) Exhibition. Mr. T. S. Mayne, the Secretary, and the Council of the show keep "up to date," though.

Dr. Reynolds' pictures of Iceland elicit warm praise from all who have seen them up here.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRMINGHAM PHOT. SOC.**—At the ordinary meeting of the above society held on the 13th inst. Mr. W. H. Smith, of the Eastman Company, should have given a paper on "Film Photography and Enlarging." But through some misunderstanding Mr. Smith wrote saying he had made some other engagement, and could not be present. Mr. J. H. Pickard, however, came forward and gave a very practical paper on the same subject, illustrating his remarks by taking a film negative through all the stages, and then making an enlargement from half-plate to 12 by 10. The Chairman (Mr. J. B. Stone, J.P., F.G.S.) congratulated Mr. Pickard on his exposition of "How it's Done," and Mr. Harrison thought the Society owed a debt of gratitude to Mr. Pickard for filling up the gap. The Secretary announced that Mr. R. Keen, of Derby, had offered to place any negatives of Warwickshire he may have in his possession at the service of the Photo-Survey Council.

**BRIGHTON PHOT. SOC.**—The second annual lantern slide competition was held on the 11th inst. Twelve sets of slides were sent in—each member being limited to one set of six—and were forwarded to Messrs. H. S. Starnes and A. Pringle for adjudication. The slides having been passed through the lantern, Mr. Starnes was called upon to give his award. He announced that the set marked "Tax" had secured the silver medal, and that of "Ajax" the bronze. Upon the sealed envelopes bearing these *noms de plume* being opened, it was found that "Tax" was the Hon. Secretary (Mr. A. H. C. Corder), whilst "Ajax" was Mr. E. J. Bedford. The winning sets were of a fine black tone, Mr. Corder's being scenes in North Wales and Devonshire, and Mr. Bedford's chiefly in the vicinity of Lewes. The slides showed a very marked advance on last year's. The medals for this competition were presented by the President (Mr. W. H. Rean).

**FORMBY CAMERA CLUB.**—A meeting was held on the 17th inst., when the members had an opportunity of inspecting some fifty lantern-slides, comprising views of English scenery, supplemented by a number of capital photographs the work of amateur photographers (all of which had been kindly lent by the Editor of the AMATEUR PHOTOGRAPHER). The Rev. Walter Elstus, in his opening remarks, drew attention to the Society, which is now two and a-half years old, and said he hoped many of the young people, and older friends too, would come forward and enrol themselves as members. He only wished he had had the same facilities enjoyed by the youth of the present day. If such splendid work could be done by amateurs, there was no reason why Formby should not come to the front also, and he hoped that very soon they might have an exhibition of work done by the members of the Club. The limelight lantern was skilfully handled by Mr. T. A. Stead. There were about 120 present, who repeatedly testified their appreciation of the excellent views thrown on the screen. At the next meeting, December 1st, Mr. Mason gives a demonstration on lantern-slide making.

**GLASGOW PHOT. ASSOC.**—The opening meeting of this Association was held on the 6th inst., Mr. Wm. Lang, jun., F.C.S., President, in the chair. Fifteen new members were elected. A paper was read by Mr. J. Craig Annan on "Naturalistic Photography," and Dr. Emerson's work was shown to the society. Specimens of the new printing process, Diazotype, were afterwards exhibited.

**GLENALMOND PHOT. CLUB.**—The fortnightly meeting was held on the 15th inst., when the President (Mr. A. S. Reid, M.A., F.G.S.) took the chair. It was determined to start a lantern slide competition, open to members of the Club. The usual exhibition of members' photographs and apparatus took place. At a previous meeting, six members were elected, and Mr. C. F. Scobell gave a lucid description of the "Kodak" and its working, with practical demonstration of its parts and specimens of work done by him.

**HACKNEY PHOT. SOC.**—The ordinary meeting was held on the 13th inst., Dr. Roland Smith presiding. The Secretary announced that this was the last day for receiving prints for the competition, and that Mr. Henry Crouch, the well-known manufacturer of lenses, had very kindly promised to give a lens as one of the

prizes. Due appreciation was shown by the members for Mr. Crouch's kindness. There is to be an exhibition of the Society's pictures (competition) and lantern slides on December 11th next, at St. Andrew's Hall, Well Street. Tickets can be obtained of any of the members. Four names were put up for election.

**HALTWHISTLE DISTRICT PHOT. SOC.**—A meeting was held on the 11th inst. specially called to see an exhibition of the slides, "Illustrated Boston," kindly lent by the Boston Camera Club, U.S.A. The slides were accompanied with a descriptive lecture. The views on the whole were good. The next meeting will be held on 8th December, when another set entitled "In and about Columbus" will be exhibited.

**HARLESDEN AND WILLESDEN PHOT. SOC.**—At a meeting of the above Society held on the 11th inst., the President, Mr. J. Naylor, in the chair, Mr. Pay gave a demonstration on "Alpha Paper," which at its conclusion earned a well-merited vote of thanks.

**HEREFORDSHIRE PHOT. SOC.**—The annual meeting was held on the 13th inst. Mr. Alfred Watkins presided. Alderman Blake was elected President (in place of Mr. James Rankin, M.P.), and Mr. A. Watkins, the Rev. W. Howell, and Mr. J. T. Salway Vice-Presidents; Mr. Cullwick was re-elected Treasurer, and Mr. J. Parker Secretary. The following gentlemen were elected on the Council: Mr. W. Parker, Mr. A. H. Smith, Mr. R. Clarke, Mr. E. G. Davies, Mr. P. Levason, Mr. H. J. Wilson, Mr. E. W. H. Chave, and Mr. E. Pilley. It was announced that professional photographers were now admitted as members of the Society. The accounts were presented, which showed a balance in hand of about £6. It was resolved to present to the Hereford Infirmary a handsome album filled with photographs taken by members of the Society. An alteration in the night of meeting for the winter months was made; the monthly gathering to take place on Tuesday instead of Thursday.

**HOLBORN CAMERA CLUB.**—The last meeting was held on the 11th inst., when the annual supper was given; thirty-eight sat down; Mr. T. Oldacres Dear, Vice-President, occupied the chair. A presentation was made to Mr. Fred Brocas, the late Hon. Secretary, of an illuminated testimonial. The Chairman, in his address, stated that it was entirely due to the untiring energy and work of Mr. Brocas that the club owed its existence and prosperity. Mr. Brocas suitably replied. Mrs. Tregaskis then, with a few very able remarks, presented the outing competition prizes. The Chairman, in detailing a few points of the Club's progress, remarked that the Club's numbers were now seventy-five, but hoped it would soon reach the hundred, and drew the attention of those present that at the annual exhibition, to be held in February next, among the prizes for competition was an Optimus optical lantern, given by Mrs. Tregaskis for the best set of lantern slides; Mr. T. Oldacres Dear, one guinea for the second best set of slides; the President, prize of one guinea, subject not decided. Mr. S. T. Chang had placed two half-guinea prizes at the Committee's disposal. Mr. Fred Brocas had offered a prize to the value of half a guinea for the ladies' competition, also another half guinea for the best and largest display of pictures; and Mrs. Tregaskis had offered a consolation prize of half a guinea for the worst set of prints. On Friday, the 14th inst., at the ordinary meeting the Hon. Secretary selected an article from *Photography*, entitled "Printing through Coloured Glasses," by Captain W. de W. Abney. The discussion that followed was entered into by Miss Hare and Messrs. Luxton, Bayston, and Thompson. Messrs. Lang and Golding were elected members.

**KENDAL LIT. AND SCI. INST. (PHOT. SECTION).**—The monthly meeting of this section was held on the 12th inst., Mr. Frank Wilson, J.P., in the chair. Arrangements for the lantern slide competition will be finally settled at the December meeting. Mr. Charles E. Greenall read a paper on "Some Hand Camera Work in Norway," commencing with some general remarks on hand cameras, and a description of the one used (Beck's), the prints, developer, exposure, etc., the approximate expense of a trip and other information, and then following with a brief account of the route taken and the places visited. The paper was illustrated with upwards of eighty lantern slides thrown on the screen by the aid of the limelight.

**LEICESTER AND LEICESTERSHIRE PHOT. SOC.**—A regular meeting was held on the 12th inst., Mr. S. S. Partridge (President) in the chair. Two members were balloted for and elected. The President then called upon Mr. H. Smith, of the Eastman Company, to give his demonstration on 'Enlarging and



Contact Printing on Bromide Paper, Kodak Cameras and Transparent Films." Mr. Smith, in a preparatory address, gave the members some most useful instructions in the development and general treatment of bromide paper, and also some most practical hints as to the details of the process, such as focussing, vignetting, and the several after-processes, all of which were closely followed and much appreciated by the members. Mr. Smith then proceeded to give his practical demonstration in enlarging on bromide paper, and produced a most excellent 15 by 12 enlargement on the Eastman bromide paper from a Kodak circular negative  $2\frac{1}{2}$  ins. diameter.

LONDON AND PROVINCIAL PHOT: ASSOC:—Nov. 27th, demonstration of Messrs. Varley and Greene's Magazine Camera; also paper by Mr. Friese Greene. Dec. 4th, demonstration of the Primuline process, by Messrs. Green, Cross and Bevan. Dec. 11th, lantern night.

MORLEY AND DISTRICT AM: PHOT: SOC:—A meeting was held on the 12th ult., Mr. S. Tomlinson in the chair. Mr. Smith gave a demonstration on "Lantern Slide Making." After reading a short paper on the subject, the room was converted into a dark-room, in which Mr. Smith made two slides, explaining the process in the course of his manipulations, the plates being Thomas's. He developed one with hydro, the other with pyro. The colour obtained by pyro was greatly admired by all, whilst the other was considered much inferior, save its beautiful detail. The demonstrator spoke highly of pyro, and gave preference to this agent against all others.

NORTH LONDON PHOT: SOC:—The annual meeting was held on the 4th inst., the President, Mr. Traill Taylor, in the chair. The Secretary presented the annual report and balance-sheet, which showed that the Society was in a flourishing condition, and that a good year's work had been accomplished. The following gentlemen were elected to serve for the ensuing year: President, Mr. J. Traill Taylor; Secretary and Treasurer, Mr. G. J. Clarke; Curator, Mr. Coventon; Council, Messrs. Bishop, Douglas, Dando, Few, Grover, Healy, Medland, Mackie, Oakley, Parfitt. The meetings of the Society will be held as usual in the Wellington Hall, Upper Street, Islington, on the first and third Tuesdays in each month, at eight o'clock.

PAISLEY PHOT: SOC:—A meeting of this Society was held on the 11th inst. Mr. James Donald (Vice-President) was in the chair. Mr. T. M. Armstrong (Glasgow), read a very able and interesting paper on "Enlarging and Reducing" by means of artificial light, and introduced to the notice of the meeting his patent illuminating chamber with which he enlarged from plates  $3\frac{1}{4}$  by  $3\frac{1}{4}$  to whole-plate on opal, copied same size and reduced from whole-plate negative to lantern size. The various opals and plates were very successfully developed by the pyro-soda formula. The names of two gentlemen were proposed and seconded as members of the Society.

PHOT: SOC: OF IRELAND.—An ordinary meeting of this Society was held on the 14th inst., Mr. Herbert Bewley in the chair. A discussion having taken place on a number of questions from question box, and seven new members having been balloted for and admitted, the Chairman called on Prof. J. A. Scott to read his paper on "Toned Photo-Micrographs." Prof. Scott passed a number of coloured specimens through the lantern, which were warmly admired by those present.

STAFF: POTTERIES AM: PHOT: SOC: (BURSLEM).—A lantern exhibition was given by the Society at the Working Men's Club, Norton-le-Moors, on the 18th inst., Mr. E. B. Wain (Vice-President) acting as lanternist. A large number of slides belonging to the Society were shown, and included many well-known local views. The room was crowded. In response to a request for another exhibition, Mr. Wain promised one later in the winter.

STOCKPORT PHOT: SOC:—The usual monthly meeting of this Society was held last Wednesday in the large hall of the Mechanics' Institute, Mr. G. Hilderley (Vice-President) in the chair. The first business was the election of thirty new members. Then the slides sent over to England by the Boston Camera Club were thrown on the screen by Mr. A. M. Gourley, who manipulated the newly-purchased perfect optical lantern, by Chadwick, of Manchester. The slides proved very interesting, and were highly appreciated by the audience present. All proved to be well and carefully made, and reflected great credit to the members of the Columbus Camera Club. The lantern gave every satisfaction to the members, and a few keen critics who were invited congratulated the members upon the possession of such a fine

instrument, especially as it is intended to make good use of it during the coming winter months. After the exhibition, the members adjourned to the ordinary meeting-room, where the prize prints of the "AMATEUR PHOTOGRAPHER Travelling Studentship Competition" were on view. These were very attractive and were much admired. During the evening several members compared notes as to the quality of the sample packets sent out by the Fry Manufacturing Company at the last meeting.

STOCKTON PHOT: SOC:—This Society held its ordinary monthly meeting on the 11th inst. Mr. J. H. Jackson—one of their oldest amateur photographers, dating from 1851—gave a demonstration of the Kallotype process of printing. In the course of his remarks, whilst developing some prints that he had previously exposed, he said that while he did not rank it as high as platinotype for depth and fairness of tone, he thought the process would still commend itself to many on account of its comparative cheapness and simplicity of manipulation.

SUNDERLAND PHOT: ASSOC:—The usual monthly meeting was held on the 12th inst. The newly-elected President, Mr. W. Pinkney, gave an account of the progress of photography during the last twenty years. It was suggested that the Society give lantern entertainments during the coming winter to the inmates of the Infirmary and the Workhouse. The question-box brought forth several queries which resulted in interesting discussions, amongst which were, "What is the best lens for a detective camera?" "What is the best method of preparing glass for drying chloride paper on?" "What is the best method of preventing halation?" "What is the best means of local reduction for negatives; also local intensification?" "What is the best way to spot a negative?" Ten new members were elected.

TORQUAY PHOT: ASSOC:—The second meeting was held November 11th; Chairman, Mr. E. Vivian, M.A., F.G.S. The Vice-President read a paper, "Thirty Years of Photography"—a retrospect. All old processes were explained, and prints of same exhibited. The President spoke of the value of photography to kindred sciences, and of the remarkable improvements in the art since his commencement thirty-six years ago. The Secretary spoke of the rapidity of plates and shutters, saying that the present commercial plate would receive an image about a hundred times faster than the retina of the human eye. An exhibition of work concluded the meeting.

WEST KENT AM: PHOT: SOC:—The ordinary meeting was held at Sidcup on the 12th, the Vice-President (Mr. A. R. Dresser) in the chair. It was decided that December 10th being Mr. Newman's lecture on "Present Tendencies of Photographic Art," followed by a lantern entertainment, should be a ladies' evening (no smoking). Messrs. Court, Jones, and H. T. Foy contributed prints to the Society's album. The Vice-President then called on the Hon. Secretary for his paper on "Bromide Printing and Enlarging," after which a demonstration was given by him in both processes. Next meeting at Board Room, Bexley, November 26th, Mr. Andrew Pringle on "Old Processes for Slide Making."

WEST LONDON PHOT: SOC:—An ordinary meeting was held on the 14th inst., the President, Mr. W. A. Brown, in the chair. Mr. Jones (Platinotype Co.) gave an interesting account of the platinotype process, and illustrated his remarks by practically demonstrating its working. Mr. Jones, replying to questions, said it was better to print a thin negative in a weak light, but a vigorous one would print just as well in the sun. When he spoke about the light, he referred to examining the print. The black specks were caused by minute particles of metal either in the paper or from the tin. Calcium would produce white spots. The strong acid would reduce a black print just as it did the sepia one, but would rot the paper. Old paper would tend to give warm tones, and a very hot developer would also give a brownish black. Next meeting November 28th, when Mr. Andrew Pringle will give a demonstration in bromide printing.

WIGAN PHOT: SOC:—A meeting was held on the 13th inst. Mr. H. H. Wragg gave a demonstration on "Enlarging by Artificial Light," using an Optimus enlarging apparatus with good results. The AMATEUR PHOTOGRAPHER Competition, "Enlargements," were on view, some of which were greatly admired. It was generally admitted that the judges had made no mistake in the awards. A number of specimens of work on Messrs. Fry's samples were shown, which proved the splendid quality of these goods. The Society is making satisfactory progress; there are already about 25 members, and many more are expected.



## A "Dictionary of Photography."

A GREAT many fancifully contrived and fearfully and wonderfully made flies, in the shape of books, have been reeled out to catch the amateur since he began to look for entertainment in photographic waters. The "Dictionary of Photography," by Mr. E. J. Wall, just published, cannot be classed with the sort of bait we have described. A more generally useful book for both practical and amateur photographers has not been issued for a long time. While one may, with propriety, gourmand its contents with perfect safety and much profit at one sitting, yet it is rather a book for emergencies—a condensed cyclopædia or ready reference book, so to speak, to which one may run for help when, in the midst of work, emergencies occur, or when a fact or a figure is wanted which memory fails to bring to the surface as quickly as the occasion requires.—*Wilson's Photographic Magazine*.

But the work before us contains much more than the A B C to the subject, beyond which limit books compiled for the erudition of non-specialist readers, as a rule, are disinclined to travel. On the contrary, it affords a complete photographic picture of the art itself, whilst the simplicity and clearness with which the author expounds the scientific secrets of the camera render his work perfectly intelligible to the most mechanical intellect. Most text-books on photography presume too much on the student's previous acquaintance with the subject which Faraday made his own. Elementary chemistry, however, has been wisely placed in the front by the present author. The focussing and developing processes bear an intimate relation to each other in actual practice, and the connection has not been lost sight of in Mr. Wall's Dictionary. Indeed, in every branch of the art, from the full-sized apparatus at the top, down to the detective camera or Kodak at the bottom, the "Dictionary of Photography" will be found an invaluable *vade mecum*.—*Star*.

See also over forty newspaper reports, which speak of the "Dictionary" as the most useful and handy work on photography yet published. Following is a list of articles contained in the work:—

Aberration	Cabinet	Diameter
Accelerator	Calcium, Chloride of	Diaphragms
Achromatic	Caloric Rays of the Spectrum	Diffraction or Infection
Acids	Calotype, or Talbotype	Dish
Actinic	Cameo	Dispersion
Actinograph, Actinometer	Camera	Dissolving Views
Aerial Perspective	Camera Lucida	Distance
Agent	Camera Obscura	Distilled Water
Alabaster Process	Camera Stand	Distortion
Albertype.	Canvas, Printing on	Divergence
Album	Cap	Dodging Negatives
Albumen	Carbon or Autotype Process	Doublet Lens
Albumenised Paper	Carte de Visite	Drachm
Alcohol	Ceramic Photographs	Drop Shutter
Alkali	Changing Box	Drying Box
Alkaline Development	Chiaroscuro	Dry Plates
Alum	Chloride of Lime	Dusting-in Process
Amber	Chrome Alum	Eau de Javelle
Ammonia	Circle of Least Confusion	Ebonite
Ammonium Bichromate	Clearing Bath	Edging
Ammonium Bromide	Cliché	Elemi
Ammonium Carbonate	Cloud Negatives	Eliminator, Hypo-
Ammonium Chloride	Collodion	Enamelling Prints
Ammonium Iodide	Collo type, Lichtdruck or	Enamels
Ammonium Oxalate	Helio type	Encaustic Paste
Ammonium Sulphocyanate	Colour, Effect of, in Photography	Enlarging
Angle, Wide-	Colour of the Film	Equivalent Focus
Angular Aperture	Colour, Photography in	Ether
Aperture of a Lens, Working	Natural	Exposure
Aplanatic	Colouring Photographs	Fabric, Golden
Apparatus	Combination Printing	Fading
Aristotype	Composition	Fahrenheit
Artificial Light	Concave	Falling Front
Artotype.	Concave, Concavo-Concave, Concavo-Convex Lens	Ferrotypes
Astigmatism, or Astigmatism	Condenser	Field of a Lens
Astro Photography, or Astronomical Photography	Conjugate Foci	Film
Autotype Process.	Contact, Optical	Film Photography
Background	Contrast	Fixed-Focus Lens
Backing Plates	Convex	Fixing
Balance	Copying	Flare
Bath	Curvature of the Field	Flatness [fluoric Acid
Beach's Developer	Cutting Prints	Fluorhydric, or Hydro-
Beechey's Emulsion Process	Cyanotype	Fluorine
Bellows	Daguerreotype	Focus
Biconvex	Daguerreotype, to Clean and Copy	Focussing, Aids to
Binoocular Camera	Dallastint	Focussing Cloth
Binoocular Vision	Dammar	Focussing Glass, or Compound Focuser
Black Varnish.	Dark-Room	Focussing Screen
Blackening	Dark Tent	Fog
Blanchard's Brush	Decomposition of Light	Fringing
Blisters	Definition	Fuming
Blue Printing Process.	Deflection	Gallon
Blue Tones in Prints	Density	Gamboge or Camboze
Blurring	Depth of Focus	Gelatin
Books on Photography	Detail	Gelatin Chloride Emulsion Paper
Brilliance	Detective or Hand Cameras	Glass
Broken Negatives	Developer	Glycerine
Bromide Paper	Development	Gold
Bromides	Dextrine	Gold, Chloride of
Bronzing	Dialyser	Gold Hyposulphite
Buckle Brush		Grain
Burnishing		

Gramme	Mounting	Rolling Prints
Green Fog	Muriate of Ammonia	Ruby Light
Ground-Glass	Muriatic Acid	Sai Ammoniac
Group	Naturalistic Photography	Salted Paper
Gum Arabic	Negative	Saltpetre
Gum Dammar	Negative Storing	Sandarac
Gum Dragon	Non-Actinic Rays	Satin, Printing on
Gum Gualiacum	Obernetter's Process, or	Screen, Coloured
Gum-Cotton	Lichtkupferdruck	Sel d'Or
Halation	Objective	Sensitised Paper
Half-Plate	Oil	Sensitometer
Head-Rest	Oil Paintings, to Copy	Shutters, Instantaneous
Hectogramme	Opacity	Side Swing or Shifting
Hectolitre	Opalotype	Front
Hectometre	Optical Centre	Silk, Printing on
Heliocromy	Optical Lantern	Silver
Helio type Process	Optics	Silver Albuminate
High Lights	Orange Light	Silver, Ammonio, Nitrate of
History of Photography	Orthographic and Orthoscopic	Silver Bromide
Hydrogen	Osmose	Silver Chloride
Hydrogen Peroxide	Over-Exposure	Silver Iodide
Hydroquinone	Oxalate Developer	Silver Nitrate
Hydroxylamine	Ox-Gall	Silver Oxide
chloride	Oxygen	Silver Sulphide
Hypo	Oxy-Hydrogen, and Oxy-	Sky Shade
Image	Calcium, or Drummond's	Slide, Dark
Image, Latent	Light	Slide, Lantern
Incidence, Angle of	Packing Plates	Soda, Bicarbonate of
Indian Ink	Palladium	Sodium Acetate
Ink Process	Panel	Sodium Carbonate
Insensitiveness	Paper, Albumenised	Sodium Chloride
Instantaneous Lens	Paper, Plain, or Matt-	Sodium Citrate
Instantaneous Photography	Surfaced	Sodium Hyposulphite
Instantaneous Shutters	Paper, Sensitised	Sodium Nitrate
Intensification	Papyrotype, or Papyro-	Sodium Phosphate
Iridescent Stain	graphy	Sodium Sulphate
Iron, Ammonio-Citrate of	Parabola	Sodium Tungstate
Iron, Ammonio-Sulphate of	Paste	Solar Camera
Iron, Oxalate of	Paste, Encaustic	Specific Gravity
Iron, Perchloride of	Pearlash	Spectroscope
Iron, Sesquioxalate of	Pellet's Process	Spectrum
Iron, Sulphate of	Pellicle	Squeegee
Isinglass	Pencil of Light	Stains
Isochromatic or Orthochromatic Photography	Perspective	Stand
Ivory	Phosphorus	Stannotype
Ivory Black	Photo-Engraving	Starch
Japan Varnish	Photography	Stereoscope
Kaolin	Photo-Lithography	Stop
Lac	Photometer	Stripping Film
Lamp	Photo-Micrography	Sublimite, Corrosive
Lampblack	Phototype	Sugar of Lead
Landscape Lens	Pinhole Photography	Sulpho-Pyrogallol
Lantern, Optical	Pinholes	Sulphur
Lantern Slides	Pizzighelli's New Printing-	Sulphur Toning
Latent Image	Out Process	Swing-Back
Latitude of Exposure	Platinotype	Symmetrical Lens
Lead, Acetate of	Platino-Uranotype, Mer-	Talbotype
Lead, Toning with	curo-Uranotype, Pall-	Test Papers
Least Circle of Aberration	diotype	Thermometer
Lens	Platinum	Thinness of Negative
Levelling Slab	Platinum, Perchloride of	Titles on Prints
Lichtdruck	Platinum Toning	Toning
Light	Pneumatic Holder	Tragacanth
Light Fog	Poisons	Transfers
Lime, Chloride of	Porcelain Pictures	Translucent
Lime Water	Portrait Lens	Transparencies
Line Drawings, To Copy	Portraiture	Transparent
Liquid Glue	Positive	Under-Exposure
Lithium	Potassium Bichromate	Uranium
Lithium Bromide	Potassium Bromide	Uranium Printing
Lithium Chloride	Potassium Carbonate	U.S., or Uniform System
Lithium Iodide	Potassium Cyanide	Varnish
Litmus	Potassium Ferridcyanide	View-Finder
Liver of Sulphur	Potassium Ferrocyanide	View-Meter
Loss of Tonic in Fixing	Potassium Iodide	Vignetting [Prints
Lunar Caustic	Potassium Metabisulphite	Washing Negatives and
Luxograph	Potassium Nitrate	Waxes
Macro-Photography.	Potassium Nitrite	Waxing Negatives
Magic-Lantern	Potassium Oxalate	Wide-Angle Lens
Magic Pictures	Potassium Permanganate	Weights and Measures
Maglip, or Meglip	Potassium Sulphide	Wet-Collodion Process
Magnesium	Powder Process	Woodburytype
Magnesium Biphosphate	Principal Axis	Yellow Fog
Manganese Binocide	Printing	Yellowness of Prints
Manipulation	Pyroxiline	Yellow Stain
Masking Skies	Rapidity of Lenses	Zinc
Masks and Discs	Rapid Rectilinear	Zincography
Mastic, or Mastich	Reamur	Usual Sizes of French and
Mealiness of Prints	Redevelopment	Italian Dry Plates
Measures	Red Fog	Sizes of Glass, Mounts
Mensusus	Reduction (in Size)	Paper, etc.
Mercury	Reduction of Density	Sizes of Mounts
Mercury, Perchloride of	Reflected Light	Sizes of Albumen Paper
Mercury, Subchloride of	Reflection of Light	Freezing Mixtures
Metallic Spots	Refraction of Light	Table of the Elements
Methylated Spirit	Rembrandt Portrait	Table of the Formule of
Metric System	Removal of Film	Chemicals used in Photo-
Micro-Photography	Residues	graphy
Minim	Restrainer	Table of Solubilities
Mirror, Reversing	Retouching	List of Dry Plates and Sen-
Mirror Silvering	Reversal	sitometer Numbers
Monocular Vision	Reversed Negatives	Cadett's Table, showing
Mountant	Rising Front	the Relative Rapidities
	Rive's Paper	of Plates of Varying Sen-
	Roller Slide	sitometer Numbers
		Sundry Formulae.

The Second Edition, Revised and Enlarged, of the "Dictionary" is now ready. It makes a handsomely bound volume of 300 pp., is illustrated with 10 diagrams, and is published at the low price of 2s. 6d. London: Hazell Watson, and Viney, Ltd., 1, Creed Lane, E.C.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

**4343. Tungstate of Soda, etc.**—Would someone kindly inform me if tungstate of soda and sulphocyanide of ammonium are both poisonous? When you purchase them in bottles, only the tungstate of soda is labelled. Does this imply that the sulphocyanide of ammonium is not poisonous?—**FRITZ.**

**4344. Loan of Negatives.**—Will any brother amateur kindly lend me a few negatives of seascapes or river scenes, half or quarter plates, for a week? Will take great care of them, and pay carriage both ways. **NEGATIVE** (address with Editor).

**4345. Kodak Films.**—Can anyone tell me the best and cheapest place (besides the Eastman Company) where they develop and print Kodak films, and the length of time they take to develop and print thirty or forty of No. 2 size?—**L. R.**

**4346. Swinden and Earp's Hand-Camera.**—Will some amateur who has used Swinden and Earp's hand-camera give me his opinion as to its merits for portability and time exposures, and also if it works with films, plates, and whether it will hold plates, say 12, ready for use, or are ordinary slides necessary, as in Shew's Eclipse?—**HYPO.**

**4347. Camera and Lens.**—Will someone tell me, if I purchase a whole-plate camera, can I, with a half-plate carrier, work half-plates as conveniently as if I had purchased a half-plate; and what is the best lens to purchase?—**BEGINNER.**

**4348. Fastest Plates.**—Could any reader inform me the name and maker of the fastest plates extant, and also the sensitometer number of the same?—**HYPO.**

**4349. Exhibition Patent Set.**—Will some brother amateur kindly give me his opinion of Underwood's Exhibition patent set?—**ATHELVAIN.**

**4350. Snow Scene.**—I gave a pretty waterfall with foliage, using stop f/32, eight seconds, and obtained a good negative. What exposure would it require as a snow scene, supposing all other conditions exactly the same? Any information will greatly oblige, as I am a professional man, and cannot spare time for experiments.—**PYRO.**

**4351. Pneumatic.**—Will any reader tell me where I can get a pneumatic ball tube and bulb, as in a Thornton-Pickard shutter; also state price?—**E. H. S.**

**4352. Rangoon.**—Can anyone inform me if dry plates, sensitised paper, and photographic chemicals can be purchased in Rangoon?—**CURIOS.**

**4353. Loan of Negatives.**—Will any amateur lend me a few quarter-plate negatives of London views, or prints of same, for lantern slides? Will pay carriage both ways.—**ORWELL.**

**4354. Combination Lens.**—Can any practical worker give me any information *re* above (Lancaster's)? I presume only one angle is rectilinear? What is its greatest aperture at each angle?—**J. P. F.**

**4355. Glossy Surface.**—I cannot get a perfect glossy surface by squeegeeing bromide prints on plate-glass, even though first rubbing the glass with French chalk. Occasional minute spots do not glaze. Any hints as to this will oblige.—**F. W. W.**

**4356. Longfellow.**—Would anyone lend lantern slides or negatives illustrating life and works of "Longfellow"? Would reciprocate with slides or negatives of Cruikshank's and Seymour's caricatures.—**F. WATTS** (address with Editor).

**4357. Transferotype Paper.**—Will anyone tell me if there is any other make of transferotype paper on the market except that manufactured by the Eastman Company, and if so, the name of maker?—**CORNWALL.**

**4358. Chloroplatinite of Potassium.**—Where can I obtain the chloroplatinite of potassium, mentioned in Mr. Lionel Clark's book on "Platinum Toning," and cost of same?—**P. G. SCHOLEFIELD.**

**4359. Retouching.**—Can anyone give me hints on retouching, or recommend me a cheap book on the same?—**P. G. SCHOLEFIELD.**

**4360. Wanted, Loan of Negatives or Photographs of Corsica.**—Preferably those taken in neighbourhood of Corti and Bastia?—**FAG.**

**4361. Transferotype.**—I want to put some transferotype prints on to a lamp-globe, and as it may need washing occasionally, I should like to know if I can get any varnish which will make the pictures stand water?—**TRANSFEROTYPE.**

**4362. Bromide Paper.**—Will anyone kindly tell me the best method, or the best pencil, for touching up bromide prints?—**COLLINS.**

**4363. Kallitype.**—Will anyone who has tried the new Kallitype printing process kindly give me their experience of it? Does it give good black tones at all resembling platinotype, and is it suitable for any fairly good negative?—**DYSMA.**

**4364. Copying.**—I should be glad of information as to how to copy a carte-de-visite on quarter-plate negative?—**VERHAM.**

**4365. Stains.**—I have some bromide prints which got some finger marks in mounting. What will remove them? Have tried powdered pumice-stone with no effect.—**F. R. P.**

**4366. Blisters.**—Will anyone tell me any hints on the prevention of blisters? I use Scholzig's paper, and carefully follow the directions. Can hardness of water have anything to do with it?—**W. F. S.**

**4367. Enlarging Apparatus.**—Could anyone tell me where I could find instructions for the making of an enlarging apparatus?—**W. F. S.**

**4368. Tripod.**—Will some one recommend me a good but inexpensive make of tripod, if possible giving price for whole-plate size? I want a kind that combines portability, cheapness, and at the same time is perfectly rigid, if there is such a one in the market.—**ALPINE.**

**4369. Spotting, etc.**—Is there any way of spotting and retouching prints, so that the colour will not come off when immersed in the gelatine to squeegee on to glass in optical contact?—**ALPINE.**

## QUERIES UNANSWERED.

Oct. 3rd.—Nos. 4217, 4218.  
17th.—Nos. 4239, 4250, 4260, 4261.  
24th.—Nos. 4268, 4270, 4275.  
31st.—No. 4297.  
Nov. 7th.—Nos. 4310, 4312, 4314.  
14th.—Nos. 4330, 4332, 4334, 4337.

## ANSWERS.

**4305. French Custom-houses.**—There is no difficulty at French, Belgian, German, Swiss, or Italian custom-houses with cameras or dry plates, except that a new unscratched camera is liable to duty as being for sale, though the fact of carrying a tripod and plates will generally prevent this contingency. Take the plates, also re-pack them in the original boxes (with tissue paper between), which are so well known that the searchers invariably pass them. If you cross the Channel by any of the night mails, the officers are often too sleepy to open anything in the shape of a hand-bag, if you say, "Je n'ai rien pas à déclarer." Don't exhibit any unwillingness with your keys. Don't rely on getting plates there, but take all with you. To save explanations in long journeys, I attach a label to all boxes of plates that have been opened, written in plain type letters, "Ne doive pas être exposé à la lumière," "Nur in der Dunkelkammer bei rothem Licht zu öffnen!" The latter once saved my plates at Cologne. My experience is the result of five years' Continental camera tours, entailing forty or fifty customs examinations.—**A. A. PEARSON.**

**4318. Ilford Developer.**—No. 2 is the accelerator; No. 1 gives density.—**WILLEE.**

**4319. Lens.**—You do not say what price you want to pay for a lens. Ross' rapid rectilinear is a good lens. I use an Optimus, which I am very pleased with. If you only want one lens, by all means get a rapid rectilinear, as it is useful for all kinds of work.—**WILLEE.**

**4319. Lens.**—It is a very hard subject to advise you on, some people preferring one maker's, some another. If you can afford it, get a Ross; if not, Wray is a good maker, or try an Optimus from Messrs. Perken, Son, and Rayment, of 99, Hatton Garden, W.C. I should advise your getting "Dallmeyer on the Choice and Use of Photographic Lenses," published at 1s., and sold by J. T. Chapman, of Albert Square, Manchester.—**W. A. J. CROKE.**

**4320. Cloud Negative.**—You can buy them very cheaply, but if you prefer to take your own, point your camera at some good clouds, and use a quicker

shutter. For time, early morning or late afternoon is best.—**W. A. J. CROKE.**

**4320. Cloud Negative.**—First get some Edwards's Isochromatic plates, slow; a yellow screen is also necessary to render the true value of clouds. This you can get at Edwards's, and, by saying what you want it for, you will get the correct tint. Fill your slides, use a small stop (say f/32), place your screen in position, and give it for this month 14 sec. at mid-day. For further information, write me through Editor.—**WILLEE.**

**4321. Equivalent Focus.**—You must have misunderstood your optician. The equivalent focus of a lens should be not less than the greatest length of the plate.—**WILLEE.**

**4321. Equivalent Focus.**—I do not know where Mr. Gibson got the opinion that the equivalent focus of a lens ought to be double the length of the plate. An angle of 40 to 60 deg. is generally considered the amount to be included in a view. I believe it is better to consider the diagonal as the basis of this measurement, though the base line of the picture is often taken. Now, if half this base is multiplied by the cotangent of 30 deg. (1/7321), it will give the focal length for an angle of 60 deg. For example, the diagonal of a half-plate is 8 in.; multiply, therefore, 1/7321 by 4, and the result is 6/9284 in. (say 7 in.) for the equivalent focus of a half-plate lens. If the base line, 6 1/2 in., is taken, the equivalent focal length is 5/629 in., say 5 1/2 in. If 7 in. is taken as the focal length, it will give angles of about 34 or 51 deg. to an upright or horizontal picture, taking the base line as standard, and therefore very close to the artistic standard. Figures are generally drawn under a smaller angle, namely, the station point is three times the distance a figure is high, so, if the figure was 4 in. high, the focal length would have to be 12 in. This, however, is a longer focus than is generally used in photography.—**J. G. P. VEREKER.**

**4322. Lens.**—Marion and Co. can supply you with a Voigtlander rapid Euryscope lens. These are about the fastest lenses in the market for the size. I think you want 10 by 8.—**WILLEE.**

**4323. Shutter for an Exposure of 1/1000th of a Second.**—Write to Mawson and Swan; they have a blind-type shutter working in front of the plate. Mr. Wall says this works from half a second to 1/1000th of a second. *Re* Paget plates, write to the firm, asking if they can make you an extra-fast lot.—**WILLEE.**

**4324. Unmounted Prints, How to Keep.**—Try soaking prints in equal parts alcohol, glycerine, and water; dry between blotting paper under slight pressure.—**WILLEE.**

**4324. Unmounted Prints, how to Keep.**—Does "J. W. C." hold the print in his left hand at an angle of about 45 deg. to the table, and hold the print taut when drawing the paper knife over back? I have never yet found this fail.—**PLUMBAGO.**

**4324. Unmounted Prints, how to Keep.**—I have had the same difficulty, so I bought a cheap scrap-book, and cut the leaves so that they would hold either half-plates or cabinets, and now it is a pleasure to look at the unmounted prints, when before it was a nuisance. I may say I burnish by squeegeeing on glass previous to putting them in the book.—**H. Y.**

**4325. Ilford Developer.**—The acid in the above developer should be put into the pyro solution. The ammonia solution reads thus:—

No. 2.  
Ammonia '860 ... .. 3 drms.  
Water ... .. 1 pt.

You will see by this that no acid is necessary for the ammonia solution.—**WILLEE.**

**4326. Mountant.**—Let "M. B." try slightly damping his photographs before mounting.—**PLUMBAGO.**

**4326. Mountant.**—Make up a mounting solution thus:—

Arrowroot ... .. 3 oz.  
Water ... .. 33 "

In which 15 gr. of gelatine has been soaked, and boil. After cooling, add 3 oz. of alcohol and a few drops of carbolic acid. Bottle this, and it will keep any reasonable time. Also, in mounting, keep your fingers off the corner and sides of the print. Till I did, I found the same as you.—**WILLEE.**

**4326. Mountant.**—Of the numbers I have tried, Marion's gives the most satisfaction, and I believe they would be besieged for it if it were better known, and they brought down the price to about half. No mountant will hold down at edges and corners if you allow the finger to take away the mountant in the act of transferring print to mount. After applying mountant, edge of print should be raised with a thin, clean knife, then put thumb of left hand well underneath print, and bring down forefinger on sticky side of print about an inch from the edge, not by any means allowing finger to touch the extreme edge; same with other hand. Then, again, shifting the print about on mount will help to remove mountant from edges. For my own use I make a very convenient mountant, with glue (best), glycerine, and spirit. Will gladly forward "M. B." a little for trial, with full directions how to make it, if he will write me through the Editor.—**H. S. LARG.**

**4327. Combined Enlarging and Home Lan**



tern. — With a 30s. magic lantern, 4 in. condenser, and a Lancaster's 10 by 8 Multum-in-Parvo, 25s., you will have all you require for your purpose. 63s. is the lowest 5 in. condenser enlarging lantern that I know of; this you could make the double use of. (b) The Multum-in-Parvo can be used by burning magnesium wire behind the negative, using a ground-glass screen between light and negative.—WILLEE.

4328. **Tripod.**—Make it with sliding legs, this being handy for uneven ground. Make top triangular, and 6 in. across. Make the height so that when the camera is on the stand you do not have to stoop to see image on the ground-glass.—WILLEE.

4329. **Lens.**—Write me through Editor, and I will write you how to test any lens you fancy. It is too long to give here.—WILLEE.

4331. **Enlarging Apparatus.**—I do not think it possible that you will get the above under at least £5 10s. to be of any use. Nothing can certainly be obtained at the price you name.—W. A. J. CROKE.

4331. **Enlarging Apparatus.**—Lancaster's 12 by 10 Multum-in-Parvo would suit you. You can enlarge any size up to 12 by 10 with this, either by daylight or artificial light.—WILLEE.

4331. **Enlarging Apparatus.**—I think "M. R." would find Griffiths' enlarging apparatus suit his purpose. I have one in constant use, and it gives perfect satisfaction. The price is 30s.—S. P. JACKSON.

4333. **Lantern Slides.**—Write to Fry's Manufacturing Company, 5, Chandos Street, W.C., for "Lantern Slides; How to Make Them," 6d. (by A. R. Dresser).—WILLEE.

4333. **Lantern Slides.**—I should advise your getting and carefully reading Hepworth's "Book of the Lantern," published at 3s. 6d. It contains a whole mine of information.—W. A. J. CROKE.

4333. **Lantern Slides.**—These can be made either by contact, or in the camera on the special transparency plates made for the purpose. There are various makes of these plates, and they can be got from most dealers. The "Book of the Lantern," by Mr. Hepworth, will give detail of the processes required.—J. G. P. VEREKER.

4335. **Washing Prints.**—Most certainly the water wants changing a good many times, as it is a very tedious job.—W. A. J. CROKE.

4335. **Washing Prints.**—Prints can certainly be washed in bowls of water, and the water changed, only no doubt it is a little more trouble. It is, however, the process I use.—J. G. P. VEREKER.

4335. **Washing Prints.**—Yes, but the process is long and tedious. I use Jefferies' Perfect washer, and have no difficulty. I should think "Novice" has had too violent a stream running. They should be kept moving, just sufficient to turn them about.—ARLINC.

4335. **Washing Prints.**—Prints can be washed as follows: Get two earthenware pans, fill each with clean water, take prints out of fixing bath, and put them into pan No. 1. After they are all taken from the fixing bath and put in No. 1 pan, let them soak for five minutes. Now take each one and draw them over the edge of the pan, face down, at the same time placing them into pan No. 2. Let them soak about fifteen minutes in this, then transfer them again the same way in fresh water. This, for eight or nine times, will not leave any hypo in the prints. I sometimes use warm water for first bath, then squeeze them before putting them in No. 2 pan.—WILLEE.

4338. **Positives.**—Mr. Wall gives the following. Make as follows:—

Nitrate of potash	...	...	12 gr.
Sulphate of iron...	...	...	20 "
Mercuric chloride	...	...	12 "

Dissolve this last by the aid of pure hydrochloric acid, six drops in

Rectified spirit	...	...	1 drm.
Distilled water	...	...	1 oz.

The negative must be absolutely free from hypo, and should be soaked in water, and then in above till white. Personally (he says) we have found these so-called positives fade and bl-ach out.—WILLEE.

4339. **Hydroquinone, Ilford Formula.**—No; use it exactly as the Ilford people tell you in their prints and instructions.—W. A. J. CROKE.

4339. **Hydroquinone, Ilford Formula.**—You do not add water to the above. Instructions on the boxes give it thus:—Use equal quantities of each.—WILLEE.

4340. **Plates for Football Match.**—Any extra-rapid plates by a good maker will do, provided the light be good. As, however, football matches usually take place in the winter time, after 3 o'clock, I doubt if "W. F. S." will get a good enough light.—PLUMBAGO.

4340. **Plates for Football Match.**—Either Paget Prize plates XXXXX, or Edwards's Special Instantaneous (sensitometer No. 22), the latter for preference, with a quick shutter and as large a stop as possible, the largest one that gives good definition, and with a quick shutter.—W. A. J. CROKE.

4340. **Plates for Football Match.**—If I were going to take a football match this month, about 3 o'clock, sun shining, I should use Edwards's Isochromatic instantaneous plates, and with stop  $f/8$  give it about one-twelfth of a second. Great care is necessary to develop these plates.—WILLEE.

4341. **Silk, Photographs on.**—Immerse the silk in the following solution:—

Gelatine	...	...	5 gr.
Chloride of sodium	...	...	5 "
Water	...	...	1 oz.

Hang it up to dry, then float for half a minute on a 50 gr. solution of nitrate of silver; dry, print, tone, and fix as usual.—WAR.

4341. **Silk, Photographs on.**—Try the following:—

Bolling water	...	...	20 oz.
Chloride of ammonium	...	...	100 gr.
Iceland moss	...	...	60 "

When nearly cold, filter, and immerse the silk for fifteen minutes. Sensitise for fifteen minutes in an acid 20 gr. silver bath, and when dry, stretch the fabric over cardboard. Print deeper than usual, and tone in

Water	...	...	20 oz.
Acetate of soda	...	...	2 drm.
Chloride of gold...	...	...	3 gr.

Common whitening, a few grains. This is taken from the "American Annual," 1839, but I have not tried it.—WILLEE.

4342. **Snow Picture.**—Snow pictures are very luminous, and generally tend to halation. I should advise your backing your plates. Any slow plate with small stop and quick hand exposure will answer your purpose. An ordinary Ilford gives good results.—W. A. J. CROKE.

4342. **Snow Picture.**—Use Thomas's landscape plates, and give following exposure, between the hours of 10 a.m. and 2 p.m.:—For ordinary landscape:  $f/8$ ,  $\frac{1}{2}$  sec.;  $f/11$ ,  $\frac{1}{2}$  sec.;  $f/16$ ,  $\frac{1}{2}$  sec.;  $f/22$ , 1 sec.;  $f/32$ , 2 sec.;  $f/45$ , 4 sec.;  $f/64$ , 8 sec. Develop with their normal solutions. The above is given by the manufacturers.—WILLEE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PROT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

H. DU-CANE LUARD.—Few can show such a good result from the first box of plates, though it is much over-exposed; it is a pity you included the two white dresses on the left of the picture. The negative would have stood a little more developing. The set you use is a useful all-round apparatus. (1) Plates as follows—b, f, e, d, c, a. (2) The colour obtained is due to the weak developer; a strong and strongly-restrained developer will give you blacker tones, but ferrous oxalate is the best developer for that work.

JOHN FERGUSON.—You do not state whether you wish to make the shutter yourself or not. Try the Thornton-Pickard instantaneous. The same firm would also supply the lock, most likely.

H. A. L. BARRY.—We will try the meters and write you. Some such thing is wanted, there being nothing quite the same on the market.

**AUTOTYPE.**—(1) The negative is over-exposed and under-developed. In enlarging, try covering the back of the negative with a mask cut from a silver print, use slow bromide paper and a well-restrained developer. Why not intensify the negative? The carbon print is flat; try printing in the sun, and develop in fairly cold water not more than 80° F. (2) Cover back of negative of man's face with matt varnish; the whole of upper part of plate we should say was slightly fogged; the carbon print was not quite even, when squeezed down. (3) Did you not use a mirror as a reflector in this? There is a curious cross light in it. (4) The camera was not level, the two carbons are at the extremes; try and hit the intermediate. (5) See answer to 3. (6) The negative would have stood more exposure, and again there is evidence of want of plumb-lines in camera. (7) See answer to 6; this is otherwise the best you have sent. (8) Again falling architecture; by all means get level and plumb indicators. To mount the prints, trim them when nearly dry, and coat with fresh starch, and allow to dry thoroughly, then damp your mount and squeeze down; or, mark your mount, paste it, and squeeze the dry print down.

W. GLADSTONE.—If the lens is a single landscape lens, altering the position of the stops about  $\frac{1}{4}$  inch nearer to or further from the lens will cure it; if the lens is a doublet, it is advisable to have them remounted by an optician.

F. W. WATTS.—Should be glad to hear of yet another Y.M.C.A. photographic society. Let us know more specifically what you want in the matter of slides, and we will try and help you. Glad to hear that you have subscribed to AMATEUR PHOTOGRAPHER since No. 1.

H. MCM.—All prints sent to the "Monthly Competitions" must be mounted.

ATHLUAIN.—A very reliable firm.

ROBERT E. DAVIS.—Negatives have been returned. Should have been pleased to have seen you when in Edinburgh.

W. B. MARSHALL.—We do not consider you ineligible.

A. D. FORT.—(1) The best is No. 1. (2) A very excellent lens.

E. ENOCH.—You give no details as to age of toning bath, nor as to previous washing, nor whether the stain appeared during or after fixing. Both prints contain hypo, and are insufficiently washed; the white bloom is due to insufficient washing before toning, or to toning face upwards.

H. H. G.—You may use your album with perfect safety, the sheets are free from hypo.

W. R. S.—From tests made, we are inclined to think the stains are due to impurities introduced in the drying book by dirty fingers. If you wish us to pursue the matter further, let us have the drying-book and a few more prints.

W. B.—This is a very common complaint, and is usually due to acid hypo. Add solution of ammonia till the fixing-bath smells well.

R. C. MACLEOD.—The stains are due to impurities in the water, and also, in one case, to dirty fingers; use a little salt in the washing-water. The stains would certainly come through in time.

E. L. BEECHER.—Only by taking the specific gravity, or using a standard solution of acid.

G. W. D.—If you want to do good work, by all means take the larger apparatus. Let us know where you are going, and we will send you names of dealers.

W. HEATH.—We certainly cannot agree with you. The matt surface is by far the more artistic, and they certainly lose nothing in detail. The prints, as first attempts, are good. The faults in the matt surface are due to air bubbles enclosed between the print and glass; squeeze more strongly.

SCENIC.—The idea is by no means new, and has been done this year. We think that the results will hardly repay you.

E. L. CHANEY.—If you use your quarter-plate lens on the half-plate camera, you will probably find that you can copy the pictures the same size. This entirely depends on the pull or stretch of your bellows, as, to copy the same size, there must be exactly double the equivalent focus of the lens between the lens and picture and between the lens and sensitive-plate. You will obtain the best results with colour-sensitive plates, such as supplied by Gutz, of Buckingham Street, and if there is much blue in the pictures it would be advisable to use a yellow screen. If you can forward the pictures we will give you more implicit directions.

X.—Many workers object to sulphite because it acts as a restrainer, especially when used in large quantities. Its sole purpose should be to preserve the developing agent—in this case hydroquinone—and give a nice coloured deposit. The sulphite should always be in the hydroquinone or pyro solution, and never in the alkali. If distilled water is used and the solutions mixed fresh, sulphite may be dispensed with.

J. W. H.—Probably your first prints get the most gold. We should strongly advise using the following:—

Acetate of soda	...	...	72 grains.
Carbonate of soda	...	...	86 "
Chloride of gold	...	...	3 "
Distilled water	...	...	10 oz.

Allow to stand for twelve hours and then use for three sheets of paper; then add to this old bath half the quantity of salts and the three grains of gold; allow to stand and use. The loss of tone is very frequent with the borax bath, and especially with some brands of paper. Whose are you using? You do not state whether you rub prints or burnish with soap. Try a stout chamois-leather for burnisher, and give us fuller details as to heat, lubricator, dryness of print, etc.

H. MANNING.—The want of density with said plates is a very common complaint. Why not try another brand? We will advise you if you send numbered list of the leading commercial plates. Try the following:—

Pyro	...	...	1 oz.
Sulphite of soda, pure	...	...	4 "
Sulphurous acid	...	...	1 "
Distilled water	...	...	9 "

With the soda, potash and ferrocyanide.

REV. F. PARTRIDGE.—For landscape work use the largest stop, which will give you good definition over the whole of the scene, usually  $f/22$  or  $f/32$ ; for buildings the same rule must apply, though generally smaller stops are required, especially if rising front and swing back are used. Kallitype is by no means a difficult process, and gives very artistic results. By all means try it.

LEWON.—The slope inwards is what is called distortion, caused by your not placing the focussing screen exactly upright. What you should use is a small plumb-line or plumb-indicator. Had you seen that the side of the house was parallel with the side of your screen this would have been avoided.

H. S. WRIGHT.—The acid you have used at its full strength, four times stronger than state 1. You had better make up a plain sulphite developer, or omit



the bromide altogether, and use twice the quantity of accelerator No. 3. Mr. Wall has abandoned the use of formic acid.

R. C. EWART.—Many thanks for the information. We certainly do not frequently sojourn "in the place of the blessed," and fear we are often relegated to a place of quite another sort.

A. J. ADAMS.—The conditions have been so framed that competitors must appraise their own work.

WM. SUTCLIFFE.—Very sorry, but of course accept your explanation.

INDIA-RUBBER.—The book will be published very shortly.

R. GORDON.—We give no money prizes. Certainly you are eligible.

CORNWALL.—Cannot say anything about the spots, the plate reached us almost in powder. Surely you should know what condition a negative is likely to be in when sent through the post in an ordinary envelope.

JOHN E. PIM.—A, a very reliable apparatus; B, a cheap and useful shutter, giving no perceptible jar.

PLUMBAGO.—See "Our Views" upon the matter. S. F. CLARKE.—The date is intentionally fixed; we expect competitors will find difficulties—see "Our Views." There is now no season for photography, and amateurs do not, at least they need not, have "laid by their photographic bits." We have thought that the competition will prove a useful employment during the Christmas holidays.

A. C. TOWNSHEND.—All right; there is no intention to let the matter slide, but the difficulties of organising the competition, exposure of plates, etc., have not yet been overcome.

W. F. BIRN (Hyeris).—Have not received the camera named.

OSWELL BURY.—Correction noted.

T. W. DERRINGTON.—We shall give your letter most careful consideration.

ANDREW J. PRICE.—The firm have never advertised in the AMATEUR PHOTOGRAPHER, but the paper is to be bought at most dealers, we believe.

BRICKLADE.—With methylated spirits.

X. X. X. (St. Petersburg).—The slides have come safely to hand.

O. H. OXFORD.—The ivory plaques are, we believe, only used for enlargements; but why not write to the makers?

J. BARLOW JUMP.—(1) Q. C. is a most reliable man. (2) They are both very serviceable cameras.

MRS. BENYON.—In one process.

COLLEGANGFIELD.—We have your letter, and will draw the attention of the firm to your suggestions.

PROFESSOR DE FRERE.—We should strongly advise No. 1.

REV. G. E. HERMAN.—See previous replies. Have written to you.

LENSGRAPH.—Yes, there are. Sun and Co.: Secretary, Mr. M. J. Harding, 4, Loxden Gardens, Shrewsbury. If you write us a reasonable letter upon the subject shall be pleased to insert.

J. W. E.—Much obliged for your letter. Sorry we did not see you in Edinburgh. Afraid we cannot recollect your frame of photographs, as the catalogue was not issued.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words,

counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send report a within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer."—AMATEUR PHOTOGRAPHER, 74 numbers for 3s., or what offers in exchange?—Frank Carter, Waltham Abbey.

Burnisher.—Half-plate burnisher, in good condition; 8s.—L. 4, Francis Grove, Wimbledon.

Cameras, etc.—¾ by 5 square reversing camera, double extension, etc., three patent backs, two cases; £7 10s.—Photo, 173, Hemingford Road, Barnsbury, N.

Half-plate camera, Popular (by Thornton-Pickard Co.), new last July, three book backs, every possible movement, in best canvas bag, made to fit; £5; cost, with bag, £6 6s. net.—Cooper, Chestergate, Stockport.

Half-plate camera, three metal slides, 20s.; copying camera, take up to 10 by 8, with one dark-slide, 12s. 6d.; half-plate burnisher, 10s.; folding tripod, 5s.; 10 by 8 R.R. lens, 60s.—Robinson, Bellfield View, Wollstanton, Staffs.

Camera, Lenses, etc.—Lancaster's 1890 half-plate Instantograph camera, dark-slide, with tripod, rapid rectilinear f/8 lens, new; list 105s.; bargain, 67s. 6d.—14, George Street, Stroud, Glos.

Lancaster's half-plate camera, lens, slide, and stand, nearly new; offers in cash.—F. W. Ede, 194, Elthorne Road, N.

Lancaster's old-pattern half-plate Instantograph camera, lens, three slides, complete; 60s.—Cnave, Hereford.

Underwood's half-plate Instanto, with two slides, tripod, R.R. lens, Phoenix shutter, simple drop shutter, and leather case; price £5; sample photographs on receipt of 2d. each.—H. Yeomans, Northwich.

Half-plate bellows camera (by Fallowfield), with two double backs, fitted with rapid Ruryscope Optimum lens, 7 by 5, quite new, folding tripod; the lot £5 10s.—F. Chamberlain, Wantage, Berks.

Lancaster's whole-plate Instanto, leather bellows, reversing back, four double slides (three Tylar's), leather case, and tripod; price £5 15s.; cost £7 15s.—Address, Mr. Taylor care of J. Crowther, Dukinfield Hall, Dukinfield.

Hand-Camera.—Kodak, No. 2, nearly quite new.—M. Lamley's Library, 3, Exhibition Road, S.W.

Lantern.—Hughes' Pamphengos lantern (cost

without case 50s.); price, with case, 42s.; equal new.—Howard, 16, Perryn Road, Acton.

Lantern Slides.—Photographic lantern slides; 4s. per dozen.—Photo, 173, Hemingford Road, Barnsbury, N.

Lenses.—Optimus 5 by 4 wide-angle, cost 39s., sell 31s. 6d., new; Underwood's 5 by 4 view lens, 7s.—Hawkins, Enmore Villa, Waverley Estate, Farnham, Surrey.

15 by 12 extra-rapid ortho-aplanatic lens (by McGhie and Bolton), stops, and cap; approval; deposit; £4.—Mrs. Benyon, Stukeley Hall, Huntingdon.

Optimus 7 by 5 R.R., perfect condition, good as new; 40s.; approval; deposit.—N. Abbottsfield, Mannamoad, Plymouth.

Optimus 6 by 5 R.R., giving splendid definition, hood screws into body of lens when using bag combination alone; price £1 12s. 6d.—Thos. Burnell, Bradmore College, Chiswick, W.

Half wide-angle rectilinear (by Watson and Sons), £1 15s.; Suter No. 1, A series, cost £3 15s., for half-plate pictures, cash £2; both almost new.—Calvert, care of Watson and Sons, 313, High Holborn.

Lens, rectilinear, grand covers 7 by 5, loose hood, stops working f/8; 25s.; approval.—6, Albion Cottages, Avenue Road, Stamford Hill, N.

Lenses, etc.—Dallmeyer's 10 by 8 triplet, 70s.; half-plate International, complete, two double backs with case, 70s.; Lancaster's stereo Instantograph, with best lenses and instantaneous shutter, three double backs, cost 100s., price 65s.—J. Biddle, 97, Medlock Street, Manchester.

Ross' R.S. lens, 10 by 8, good as new, with Kershaw shutter, £6 10s.; Ross' portable symmetrical, 10 in., quite new, £6.—Dr. Wardrop, 13, Western Parade, Southsea.

Sets.—Lancaster's International quarter-plate set, complete, little used, 30s.; induction coil, 1½ in. spark, 20 vacuum tubes, large bi-chromate battery, three sets lantern slides, life models, model engine and boiler; offers, cash or exchange.—190, Heyside, Oldham.

Lancaster's 1890 quarter-plate special Instantograph set, 35s.; Talmer hand-camera, 35s.; both new condition; approval.—No. 83, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Violin, etc.—Magnificent solo violin (copy Niclaus Amat), beautiful rich and powerful tone, suit professional or any player, cash wanted, baize-lined case and silver-mounted bow; only 15s. lot; no rubbish, and very valuable bargain; bound to please; 20s. worth of music given in free.—Mr. B. Graham, College Buildings, Ipswich.

## WANTED.

"Amateur Photographer," etc.—AMATEUR PHOTOGRAPHER, weekly; also "Reporter," monthly, cash or exchange.—Copeman, Henstridge.

"American Annual of Photography."—A copy of the "American Annual of Photography" for 1889, paper cover edition, must be clean and in good condition.—G. Carmichael, Castle Craig, Dolphinton, Scotland.

Camera, etc.—Quarter-plate camera, cheap; also Wray's 5 by 4 R.R. lens.—Turnbull, 75, Smedley Road, Cheetham, Manchester.

Exposure Meter.—Watkins' exposure meter.—F. W. Ede, 194, Elthorne Road, N.

Lens.—Ross' 6 in. portable symmetrical, cheap.—Mower, 84, Park Street, Bristol.

Negatives.—State subjects, sizes, price, etc.—Cooper, 215, London Road, Croydon.

Tripod Stand with head, for quarter-plate camera, cheap; exchange Demon camera or cash.—Cannell, 97, Strand Street, Douglas, I.O.M.

Yorkshire Negatives.—On hire, for making lantern slides, negatives of Yorkshire scenery.—Send list and terms to Hy. Thompson, Grosvenor Terrace, Harrogate.

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**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.



**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

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THE Proprietors of the *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

- |  |     |     |     |         |
|--|-----|-----|-----|---------|
| No. 19.—SEASCAPE and RIVER SCENERY       | ... | ... | ... | Dec. 1. |
| „ 20.—PORTRAITURE and FIGURE STUDY       | ... | ... | ... | Jan. 1. |
| „ 21.—ANIMALS and INSTANTANEOUS SUBJECTS | ... | ... | ... | Feb. 1. |

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM : PHOT*:

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All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play, neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man,"

EDITOR:—*AMATEUR PHOTOGRAPHER*,  
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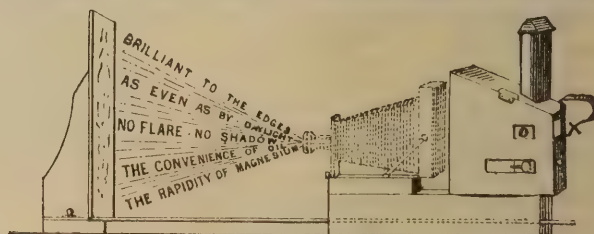
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EDITOR, "*AMATEUR PHOTOGRAPHER*,"

1, CREED LANE, LONDON, E.C.

NOTE.—These Slides will be loaned to Photographic Societies.



# The AMATEUR PHOTOGRAPHER

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Offices: 1, Green Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 321.]

FRIDAY, NOVEMBER 28, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—Shakespeare.

THE judging of the Lantern Slides contributed to the AMATEUR PHOTOGRAPHER 1890 Competition will take place to-day, the judges being Messrs. England, Gale, Hussey, and Nott, all well-known workers with the lantern. The awards will be published in our next issue. It is interesting to note that notwithstanding the fact that only one class could be entered, and that only one set of ten slides was allowed to be contributed by each competitor, we have received 690 slides from 69 competitors, as against some 600 in the last competition from 59 competitors. The slides are many of them by first-class workers, and the prizes will be well earned. We publish a list of the competitors and the classes in which they have entered.

We have also to gratefully acknowledge for our "Loan Collection" the gift of slides sent in to the Competition, whether successful or unsuccessful, from Messrs. C. G. Davis, A. Pitkethly, G. Bingley, A. E. Lane, Edgar G. Lee, W. H. Bailey, W. W. Gratschieff (St. Petersburg), J. C. Oliver, and A. D. Guthrie. We appreciate the kindness of these gentlemen very much, as we have so many calls upon us for slides at this season of the year.

THE Stereoscopic Slides are coming in slowly, and we fear that the condition that ten slides must be contributed has been rather too severe a tax upon some workers. In fact, we know that one society which numbers nine stereoscopic workers were unable to meet this condition. We could not, of course, make any alteration to the published conditions, so have placed a Silver and Bronze Medal for competition by members of that society, with the result that those who can will enter ten slides in the general competition, and all the workers will probably compete for the medals placed at the disposal of the society.

We are most anxious to encourage the taking up of stereoscopic photography, and are pleased to state that Mr. Valentine Blanchard has kindly consented to act as judge in the "Stereoscopic Competition."

MR. JAMES LYON'S "How Surefoot Won the Two Thousand" has created quite a sensation in sporting circles. One paper says, "In the photograph, beside the first and second, we see a good length of the railings with the spectators behind them, and the faces, although small, are almost recognisable."

WE are very pleased to hear that the photographic society started at Yarmouth some two months since, has already

some thirty-two members. This success is due to the energetic action of the President, Mr. H. Dudley Arnott, and the Hon. Secretary, Mr. H. Harvey George. The Society are acting in a most liberal manner to the officers of neighbouring societies, and have accorded to them all the privileges of honorary members.

THE Cape mail brings us the news that, mainly through the exertions of Mr. B. A. Lewis, a photographic club has been successfully started at Cape Town. The Astronomer-Royal, Dr. David Gill, has consented to be the first President; a powerful committee has been formed; Mr. Lewis has been elected Secretary, and at the time of writing us we understand thirty gentlemen have been enrolled as members. The Club is open to all interested in photography. Mr. Lewis says:—"I trust that now we have the Club, I shall regularly see both the *Quarterly* and the *Reporter*. The AMATEUR PHOTOGRAPHER, of course, will be read by every worker; that is the only thing that has seemed to keep me in touch with what is going on."

A VERY successful exhibition was held last week by the South London Photographic Society. It was very largely attended and some good work shown, to which reference is made in another column.

MANY of our subscribers "north of the border" will be pleased to hear that we have appointed Mr. John Pirie, who is on the staff of a leading paper in Edinburgh, our "District Editor." We shall hope, therefore, to devote some space every week to news from Scotland. We understand that the awards in connection with the Exhibition may not be made known for some little time, but we shall not fail to give due prominence to all that takes place in connection with the Exhibition.

WE have received from the Secretary of the New York Camera Club an exquisitely printed catalogue of the exhibition held at their rooms of modern photo-mechanical processes. The book is also made more valuable from the fact that it contains an essay on the subject by Professor Chandler, who has made a special study of it. The exhibitors, who were, of course, professionally engaged in working the various processes, were numerous, and as all the modern methods were to be seen; a most interesting and instructive exhibition was the result.



WE publish a letter from Mr. Arthur W. Clayden, M.A., F.C.S., F.G.S., the Secretary of the Committee on Meteorological Photography, appointed by the British Association. In the letter Mr. Clayden makes his own appeal, and we can only add that many of our readers are able to help to collect such photographs as are desired, and we trust they will.

—♦♦♦—

MR. G. W. HATFIELD, of 817, Commercial Road, London, E., writes us that: "Several amateur photographers in this district are desirous of forming a camera club." He will be pleased to hear from any workers in photography who may be willing to help form the club.

—♦♦♦—

AN esteemed correspondent, writing from Hyères, advises us that the Director of the Hotel des Palmiers has fitted up an excellent dark-room, with water laid on, sink, etc. The local chemists stock the chemicals in common use, and plates are readily obtained from Paris.

—♦♦♦—

FROM a circular letter before us, we note that it has been proposed to form a "Professional Photographers' Association of the United Kingdom." A meeting was called for Thursday last at the Grand Hotel, Manchester. We do not, of course, know whether it was determined to start the association, but the circular urged the attendance of those receiving it, because "matters vitally affecting the status of the profession will be brought up for discussion."

—♦♦♦—

SOME correspondence was published in our columns upon the desirability of forming a photographic society at Bournemouth, the outcome of which has been the starting of a photographic section of the Bournemouth Society of Natural Science. Dr. Hyla Greves has been elected President, the Rev. J. R. Husband Vice-President, and Mr. W. Jones Hon. Secretary.

—♦♦♦—

WE strongly recommend to the very serious consideration of committees of photographic societies, especially at seaside and holiday resorts, the desirability of permitting temporary membership for a small fee by anyone practising photography who has an introduction from ourselves, or who is a member of any photographic society. We feel sure that the subscriptions, though small, would materially help the finances of the provincial societies. It is at least worth consideration, and we shall be glad to hear from secretaries in good time in order that the particulars may be included in our "Register of Dark-Rooms," which we shall endeavour to considerably augment in the spring and increase its usefulness.

—♦♦♦—

THE first meeting of the one hundred and thirty-seventh session of the Society of Arts was held on the 19th inst., upon which occasion Sir Richard Webster, M.P., Chairman of the Council, delivered the opening address, in the course of which he alluded at much length to photography, tracing the progress from 1839 to the present time. The sessional arrangements include a paper by Mr. George Davison on "Impressionism in Photography," to be delivered on Wednesday, the 17th proximo. At meetings after Christmas papers will be read on "Photography in Aniline Colours," "Illustrated Journalism," and there will be included in the Cantor lectures three lectures by Professor R. Meldola, F.R.S., on "Photographic Chemistry," to be delivered on March 9th, 16th, and 23rd. From the foregoing it will be seen that the Council are fully alive to the interest evinced in all matters connected with photography.

THE question of "stale plates," now receiving attention, should, we think, rather be entitled, "How long will plates keep under adverse and trying circumstances?" because these are too often the conditions under which they are kept in retail establishments. Dr. Eder, in his well-known Handbook, says, "Dry gelatino-bromide of silver plates, which are kept in a dry, cool place, will keep as a rule for a long time without change. Dampness is extremely prejudicial to the plates, for the film soon loses its good qualities in a very damp air, such as in cellars, and gives foggy and stained plates." According to Davanne, a particular brand of English dry plates kept for two years, and Monkhoven has kept plates even longer still. Mr. I. C. Johnson's letter, in *Am. Phot.* p. 341, Nov. 14th, merely proves that the circumstances under which his plates were kept were not particularly trying. We shall now proceed to point out the best methods for producing stale plates, and the best method for preventing the same.

First and foremost it must be clearly understood that a great deal depends upon the method of manufacture; thus plates coated with an emulsion prepared with ammonia are far more liable to become foggy, especially towards the edges, than plates coated with an emulsion prepared according to the acid method. We have heard it stated by a well-known plate manufacturer that fog in plates, especially rapid plates, was due to an increase of rapidity or rather sensitiveness caused by keeping. This, however, we are inclined to dispute, as although the plate may fog, it will show no higher number on Warnerke's sensitometer, and, in fact, in some cases a lower number. Manufacturers who desire to retain a reputation for plates which will keep should add a trace of soluble bromide to the emulsion before coating. This soluble bromide would at once decompose any of the silver subsalt which causes the fog, and yet would have little or no effect upon the invisible light image or its formation.

The best method of making so-called "stale plates" is to keep the boxes of plates in, first, a damp place; second, some place which is subject to great and sudden changes of temperature; third, in places where fumes of chemicals, gas, etc., can have access to the boxes. The first condition, then, is a damp place, such as a cellar, or in some room frequently or continually supplied with open surfaces of water, such as cisterns, dark-room sinks, solutions, etc., or in a room against an outer wall, where rain beats on the outside, and, of course, against the walls of newly-built houses. The second condition—sudden changes of temperature—may be found when plates are stored at the top of shop-rooms or warehouses where, when the gas is lit, the temperature may rise, perhaps, in less than half an hour ten or fifteen degrees, according to the number of burners; and in an hour or two from twenty to forty degrees. Considering that the plates are only separated from such a temperature by thin cardboard boxes, we can at once recognise how prejudicial this increase of temperature must be, and on extinction of the gas the lowering of the temperature is almost as rapid and equally prejudicial. The third condition is often realised again in connection with our second condition, as, next to actual chemical fumes, such as hydrochloric and nitrous acids; there is nothing so prejudicial to the sensitive salt as the fumes of combustion of ordinary gas.

The best conditions then for keeping plates would be to keep them in some, comparatively speaking, air-tight cupboard or box, so arranged as not to be affected by external alterations of weather or temperature; and, secondly, the manufacturer should in all cases add a trace of soluble bromide to the emulsion—thus for every litre of emulsion 10 to 20 c.cm. of a 1 per cent. solution of bromide of ammonium or potash.



Brooks (*British Journal*, 1883, p. 60) states that bromide and bromo-iodide plates keep better than chloro-bromide. We ourselves have worked plates this summer which were made in 1886, and obtained absolutely fogless negatives; on the other hand, some plates bought in 1889 showed vigorous marginal fog, which nothing would prevent. An interesting note appears in *Photographische Rundschau* for this month, from the pen of the famous astronomical and spectroscopic photographer, Dr. Nikolaus von Konkoly, who states that in one case where he received foggy plates from a dealer he complained and received an evasive answer that "the dealer only did business with the first firms, etc." *Verbum sat. sap.* In the same magazine, Herr Alex. Hauger says that he had to use plates "which had been well packed, and kept in soldered boxes from eight to ten years, and had made several sea voyages, and still gave excellent negatives." Evidently, then, it is not *how long*, but *how* plates are kept, which affects them.

—•••••

### THE WINTER'S WORK.

BEFORE concluding our series of hints to photographic societies (see No. 312 and No. 319) we will call attention to one or two additional matters which executives should not lose sight of.

There is no need to emphasise the value of lantern shows: everyone appreciates the powerful advantage which views gain by being seen on what is approximately the scale of nature. But in the conduct of such displays there is often much that is wanting. What should be aimed at, although not always attainable, is an orderly and intelligent connection between the slides shown; they should, somehow, be made to "point a moral and adorn a tale," instead of being, as is too often the case, shuffled through the lantern without any arrangement or explanation. Mr. T. C. Hepworth, in an article which appeared in No. 268 of this journal, has given a very good model on which slides can often be advantageously exhibited. At a lantern evening last winter, great success was obtained by the lecturer describing an imaginary drive round the neighbouring country, while some two hundred views depicted the objects of beauty or interest met with on the jaunt. In a similar way a river can be figured from source to mouth, or a subject such as church architecture or wayside inns made the foundation for much interesting and profitable verbal and photographic description.

In these days when exhibitions are overwhelming in their number, it at first sight seems unnecessary to provide anything in their nature; but wherever local circumstances make it advisable (which is mostly the case) representative collections of photographs should from time to time be obtained for members' inspection, that they may see what is being done in the various branches of the art-science. Our own prize competition collections afford a very convenient way of supplying this want, and other opportunities as they occur should be taken advantage of. Many of the large manufacturing firms, if properly approached, will loan sets of prints which have considerable educational value.

The provision of competitions between members should by no means be neglected. Such trials of strength ought to be as varied as possible as regards subject and conditions, so that every individual should in turn have an inducement to compete. The prizes (*not* coin) need not be of surpassing pecuniary value, and should be supplemented by certificates of merit. In all cases, the judges should be above suspicion of favouritism, and also be possessed of undeniable skill and experience.

A healthy *esprit de corps* is engendered where it is pos-

sible to arrange for a competition between two (or more) societies. This is too seldom done; yet such friendly encounters are powerful stimulants to the production of good and ambitious work, and moreover make members feel a personal and heightened interest in elevating the photographic status of their respective societies.

The management of the larger societies should, if they have not already done so, now set about providing a properly fitted room and appurtenances for the manufacture of dry plates, and for the preparation and sensitising of various makes of printing papers. For such purposes the ordinary dark-room is insufficient; its appointments are inadequate, and if used for plate making, etc., it would be to a very large extent unavailable for ordinary developing work. All those who have attained to the necessary ability to prepare plates or paper are not only exceedingly enamoured of the occupation, but, perhaps not unnaturally, consider that the results which they obtain are much superior to those which the respective commercial articles yield. In some cases this may be so, more especially as regards home-sensitised paper, but for ourselves we are inclined to pin our faith to the excellency of the materials produced by the great manufacturing firms; be that as it may, wherever a tolerable proportion of members ask for such facilities, let them ungrudgingly be given.

Some time during the winter it is usual to hold the annual meeting for the election of officers and for other purposes. That such an assembly be fully attended is of vital importance. It is therefore expedient to provide some powerful attraction over and above that which the business of the evening affords. What form this should take will, of course, depend upon circumstances.

In conclusion, we would remind those concerned, of the well-worn but none the less valuable aphorism, "All work and no play makes Jack a dull boy."

Whenever, as is the case with photographic societies, you have a body of individuals whose tastes and sympathies accord, you have a favourable opportunity for organising various gatherings of a sociable nature. Do not throw away this useful power, but remember there are such diversions as conversaziones, concerts, dinners, and (don't jump!) dances. The last-named may sound passing flippant, but if any society has unfortunately a balance on the wrong side, it cannot do better than dance out of debt. Call in your cousins, your sisters, and your aunts, and it will be hard if they do not emancipate you from your creditors, and also forgive your members for the aggravating stains which pyro and sulphate of iron possess such a wonderful aptitude for imparting to the household belongings.



### Negatives and Positives.

THE question of stale plates continues, and is likely to continue, to interest all who use plates at irregular intervals. From several specimens of unsatisfactory negatives lately brought under notice, it would seem that the question of time is not the only element involved.



It is fairly well known to experienced workers that, moisture in the air, combustion products from gas, lamps, fire, etc., affect plates even when protected by two or three wrappings of paper. The following case bears out this contention. A box of plates, at least a couple of years old, was opened and negatives made from the "stale plates." On comparison it was found that those plates from the middle of the box showed little or no defect, except slight iridescence towards the edges, while the two outside plates



were "fogged" all over. The box had been overlooked and kept in a room where gas was frequently used.

FROM the letters of several correspondents, it would seem that our first remarks on this matter were imperfectly understood. We are satisfied that plates have been kept in perfect condition for several years. If the date of make was placed in each box, the question of age would then be one known quantity in determining the cause of any defect. Although we might not be able always to put the saddle on the right horse, yet, at any rate, we should be spared the chance of putting it on one wrong steed, viz., *Tempus*.

WHAT are the essential conditions for making and keeping plates which shall meet all probable requirements are by no means certainly known, and are not likely to be ascertained, except by systematic experiment, *i.e.*, varying first one condition and then another. Amateurs all may help, by keeping careful notes of when bought, how packed, how kept (on edge, laid flat), state of atmosphere, damp, gas, temperature, etc., and, furthermore, making careful notes from time to time of any change of condition, etc., either in the keeping of the plates or the negatives produced.

It is not very easy to see why Jones who goes a-fishing with rod and basket (containing his lunch—very often that is all it does contain) should have cheap railway fares, and Smith who goes a-catching sunbeams with his camera, etc., should not have similar advantages. "Cheap returns" would be a great boon to many men whose only chance of daylight in the country is their Saturday afternoon. The cost of railway ticket is, no doubt, often felt to be out of proportion to the short hours of daylight at his proposed country station. A reduced fare for knights of the camera would bring a good load of grist to the booking clerk's mill.

It is pleasant to find the great Hunt saying, "Whoever really knew the Sistine Chapel decorations until photographs brought them to us? Formerly we looked at what seemed the great brown patches, straining our eyes in the glare of light, or holding a looking-glass in our hand to reflect them. They had to be brought to us before we could know them."

*Aunt Belinda*: "I am so interested in your instantaneous camera; do explain it all to me."

*Charlie*: "It's quite simple. This is an Isochromatic tripod which is worked by a pneumatic diaphragm. The aplanatic pyrogallol is focussed with sesqui-sulphide of actinism, and finally the monocular collodion is developed by gelatino-chloride of the spectroscope—quite easy—do you see?"

*Aunt B.*: "Perfectly, thanks—how very interesting! I never understood it so clearly before!! It's quite like the Italian opera!!!"

VEYERS' RECTILINEAR LENS.—Mr. C. C. Vevers, of 12, Market Street, Briggate, Leeds, has forwarded us a half-plate R.R. of 8 in. focus, which we find works well at  $f/8$ , and will cover sharply to the corners with that aperture, and with a small diaphragm easily covers the next size larger. We can confidently recommend this instrument to those amateurs who want a cheap and at the same time an efficient and reliable lens. Mr. Vevers' well-filled catalogue is well worth perusal, and practically forms a perfect *vade mecum* of appliances.

## Letters to the Editor.

### CURVATURE OF FIELD IN RELATION TO ENLARGING.

SIR,—Although the effects of "spherical aberration" in lenses, and the means necessary to be taken to correct it in relation to "curvature of field," are taught even in the more elementary works, and the desirability is recognised of receiving the image upon a curvilinear instead of a plane surface (a measure inapplicable to glass plates, but possible with flexible films and paper), I do not remember that any instructions upon enlarging suggest that a curvilinear surface should be given to the easel upon which the enlarged image is received. In enlarging from a small (quarter-plate) landscape negative, even if it be technically good, it becomes necessary, if the image is to be sharp to the margins, to stop down the lens considerably—of course, at the expense of illumination and exposure; and when enlarging by artificial light, with many of the slower bromide papers, exposure becomes inconveniently prolonged. But if a curvilinear form be given to the easel, the full aperture of the lens can be used, reducing exposure to a minimum.

I have applied this principle to my easel in the following manner:—The centre of a sheet of paper 16 by 12 in.—my usual size for enlarging from a quarter-plate negative—being pinned to the easel top and bottom, a wedge-shaped piece of wood was passed beneath one end of the paper till the margin of the picture was equally sharp with the centre. The distance to which the margin was advanced towards the lens was found to be 1 in. Two pieces of wood were then prepared 12 in. long and 6 in. wide. They were then planed down so as to form two wedge-shaped pieces 1 in. deep at outer and  $\frac{1}{2}$  in. at inner edge. These were then screwed down upon the easel, and to them a thin piece of cardboard fixed, thus forming the required curved surface. Upon this the picture being sharply focussed, the sheet of sensitised paper is pinned. With Ilford's rapid paper and the artificial light I use, which I shall presently describe, and using a R.R. lens, 8 in. focus, at full aperture, an exposure of from 8 to 10 secs. suffices to enlarge from a quarter-plate up to 16 by 12. If a longer exposure be necessary, as it is in enlarging from landscape negatives, into which skies have to be introduced, the lens can be stopped down to any desired extent, the exposure being calculated upon the well-known ratios of the squares of the diameters of the stops, or a slow paper can be used. The artificial light I use is the Welsbach incandescent gas light, said to be of 16-candle power, and I find it most convenient. It is attached to the nearest gas bracket by a flexible tube, and it can be lighted and extinguished in a moment. The ordinary oil lamps supplied with enlarging lantern, on the other hand, require constant trimming, to say nothing of smoke and smell.

I submit these remarks for insertion in your widely read journal, as they may possibly be appreciated by brother amateurs given to enlarging their small pictures.—Yours faithfully,

J. L. RANKING  
(Surgeon-General).

\* \* \* \*

### SPECIAL RAILWAY FARES FOR PHOTOGRAPHERS.

SIR,—At the last meeting of the Committee of the Railway Passengers' Protection Society, who have offices at 3, Lambeth Hill, Queen Victoria Street, E.C., I brought up the very question of "the desirability of getting special rates for photographers from railway companies," and the Committee were of opinion that it was a question which came within the scope of their operations, and that they would be glad to co-operate with photographers to obtain from the railway companies some such recognition as sporting men and others receive. I would advise all interested in this question to combine together, by writing to the Hon. Secretary of the above Society, and securing united action by enlisting the services of the Railway Passengers' Protection Association on their behalf.—Yours faithfully,

Nov. 22nd, 1890.

GEO. H. VERNY  
(Lieut.-Col.)

SIR,—Now the question is again started, I do not think it should be allowed to rest till we have settled the matter one way or the other.

Your correspondent, Mr. W. A. Brown, points out that fishing



clubs have privileges for their members. Why have we not the same? I suppose the reason is this, they tried till they gained their point, and we have not. I would suggest that one of the larger societies take the matter up, and write to all the societies in and near London to get the number of members, and then approach the railway companies. A ticket should be obtained only through the society to which the member belongs; they could be renewed yearly on payment of a small sum to the parent society. The ticket to be produced at the railway station, and camera, etc., shown, just as a fisherman shows his rods.

I should think it would be to the advantage of the railways to grant tickets at half-price for journeys from five to twenty miles. I do not think this will prove unreasonable. Any surplus after paying expenses might be handed to some photo-benevolent society. If the larger societies will not take the matter up, I am sure others will be pleased to do so, on account of the benefit it would be to us amateurs.—Yours, etc.,

H. SMITH.

\* \* \* \*

#### LANTERN SLIDES.

SIR,—In answer to Mr. D. G. Pinkney, I can only say I am sorry I omitted the eikonogen formula, but as I seldom use it for slides, much preferring quinone, and not being able to get any for some time past, I forgot all about it. As to instructions for reducing through the camera, I gave all I was able to do in the limited number of pages I had to write. Of course, one can hardly expect as much in a book for 6d. as if he paid 2s. or 3s., and if I had to go into full particulars, the book would be so large it could not have been brought out at 6d. I wrote it as a handy book for quite beginners, as I thought it was required, and I was right, as is proved by the number sold.—Yours truly,

November 22nd, 1890.

A. R. DRESSER.

\* \* \* \*

#### SHUTTERS.

SIR,—On page 534 of the "Photographic Almanac" for this year, Mr. E. J. Wall states that "no shutter working close to the lens, no matter whether a simple drop or go and return, or diaphragmatic opening and closing from the centre, can allow the full aperture of the lens to act during the whole of the exposure." By this, when joined to the context, he implies that a roller-blind shutter, fixed close to the plate, has no similar disadvantages.

I take it that there is a considerable difference between a diaphragmatic shutter and a shutter working in front of or behind the lens combination. Any opaque object of any shape or size, and placed in any position in the plane of the diaphragm slot, materially affects the intensity of illumination over the whole plate; but the same object placed in a similar position close to but behind the back lens appears to affect part only of the plate, and leaves the intensity of illumination over the remainder undiminished.

If I am right, then, it cannot matter, on the score of efficiency, where the shutter is placed between the lens and plate, and it is obviously more convenient to have it close to the lens, rather than close to the plate.

From want of knowledge, however, I am wrong somewhere, and my object in writing is to ask Mr. Wall if he will kindly point out (1) how it is that the top half of the back lens is utilised in illuminating and portraying the bottom half of the picture; and (2) why a roller blind close to the plate is more efficient than a similar but proportionately smaller blind close to and behind the lens?—Yours truly,

S. L.

November 22nd, 1890.

NOTE.—If an opaque shutter is passed slowly across the lens, first before the lens, secondly behind the lens, and the focussing screen is watched, the course of the shutter is marked by a decrease of illumination, which at once proves No. 1 statement wrong. A roller-blind shutter working close to the plate is the only shutter which allows full aperture of the lens to act during the whole of the exposure.—ED: AM: PHOT:

\* \* \* \*

#### JUDGES AT THE VIENNA EXHIBITION.

SIR,—Appended I have the pleasure of sending you a list of the gentlemen who will form the jury at the International Photographic Exhibition to be held here next spring.

H. von Angeli, Professor at the Impl. and Royal Academy of Fine Arts, Vienna, painter; J. Benk, sculptor; J. Berger, Professor at the Impl. and Royal Academy of Fine Arts, Vienna, painter; K. Karger, Professor at the Art Industrial School at

the Austrian Museum, painter; F. Luckhardt, Professor, Impl. Councillor, photographer to his Impl. and Royal Majesty the Emperor; A. Schaeffer, Director of the Impl. Picture Gallery at Vienna, painter.—I am, etc.,

CHARLES SERA

(President of the Club of Am: Phot: of Vienna).

November 16th, 1890.

\* \* \* \*

#### METEOROLOGICAL PHOTOGRAPHY.

SIR,—At the Leeds meeting of the British Association, a Committee, consisting of Mr. G. J. Symons, F.R.S., Chairman, Prof. Raphael Meldola, F.R.S., Mr. John Hopkinson, and myself, was appointed to report upon the application of photography to the elucidation of meteorological phenomena, and to collect and register photographs of such phenomena.

The success with which these instructions can be carried out necessarily depends in a great measure upon the voluntary co-operation of others. Will you, therefore, allow us to appeal to photographers through the medium of your columns, and to ask all who have in their possession negatives of clouds, lightning, hoarfrost, hailstones, or any other meteorological phenomena, or of damage done by whirlwinds, tornadoes, or storms, to communicate with me?

We shall be grateful for copies of any such photographs, but shall especially welcome offers of future assistance in the shape of photographs taken in accordance with some simple instructions which will be supplied on application.—I am, etc.,

Warleigh, Tulse Hill Park,

ARTHUR W. CLAYDEN.

London, S.W., Nov. 18th, 1890.

\* \* \* \*

#### POSTAL PHOTOGRAPHIC CLUB.

SIR,—Will you kindly allow me to make it known through your journal that I shall be glad to receive the names of those willing to join a Postal Photographic Club, for the circulation and criticism of photographs, and discussion on matters appertaining thereto, which I am forming. As the number of members is limited, early application is desirable.—Yours truly,

107, Old Town Street, Plymouth.

HY. E. TREW, A.P.S.



TITLES ON PRINTS.—Numerous dodges have been suggested for this, such as writing backwards on the negative, employing type, carbon tissue, etc. The most practical methods are either to write the title first of all on the paper before printing with some aqueous non-actinic or opaque colour, such as gamboge or Indian ink, the same being washed off prior to toning; or the following may be used after toning:—

Iodide of potassium	..	..	..	..	10 parts.
Water	..	..	..	..	30 "
Iodine	..	..	..	..	1 part.
Gum	..	..	..	..	1 "

Write with this on a dark portion of the print, when the letters will soon become visible by the conversion of the image into iodide of silver, which will be dissolved by the usual fixing bath.—*Wall's Dictionary of Photography.*

SCREENS FOR DARK-ROOM WINDOWS.—Herr E. Vogel, jun., son of the well-known Professor H. W. Vogel, has suggested the following method of making coloured screens for dark-room windows and lamps: Dissolve 1 gramme of aurantia by the aid of heat in 100 cc. of pure water, adding, if necessary, a few drops of ammonia to aid solution, and in a separate vessel dissolve 25 grammes of gelatine in 100 cc. of water by the aid of heat; mix the two solutions, and filter through flannel, and coat sheets of glass with the same, avoiding air bubbles. About 1 oz. will be sufficient for about seven square inches. Eight grammes of rhodamin are also dissolved in 250 cc. of water and 20 grammes of gelatine in 100 cc. of water, and 25 cc. of the latter solution are mixed with 30 ccm. of rhodamin solution; the mixture is filtered, and then poured on glass in the above proportion; the plates, when dry, should be placed film to film and form a good screen, which can be further improved, we think, by using ground glass for one of the plates, and coating on the smooth side. The only fault with screens thus prepared is, that light bleaches out aurantia, though rhodamin is a tolerably stable dye; consequently, in time fog might and would probably ensue.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 343.)

EXPERIMENT 71.—Dissolve small quantities of each of the four salts in separate quantities of water, and to each solution add a few drops of a solution of silver nitrate (1 part in 20 parts of water) and afterwards some dilute nitric acid: (a) zinc sulphate gives no precipitate; (b) magnesium sulphate gives no precipitate; (c) zinc chloride gives a white curdy precipitate which does not dissolve when the nitric acid is added; (d) magnesium chloride gives a white curdy precipitate, also insoluble in nitric acid.

Now, since the two sulphates yield no precipitate, it follows that in this case, as in Expt. 69, the formation of the white precipitates is not due to the zinc or magnesium.

EXPERIMENT 72.—To some dilute hydrochloric acid add some silver nitrate solution; a white curdy precipitate forms which does not dissolve on adding nitric acid, and which is precisely similar in every way to the precipitates formed by the zinc and magnesium chlorides respectively.

Hydrochloric acid, zinc chloride, and magnesium chloride contain a common constituent which produces the white precipitate with silver nitrate. This constituent is found to be chlorine, and the three compounds have the following formulæ:

HCl.	ZnCl <sub>2</sub>	MgCl <sub>2</sub>
Hydrochloric acid.	Zinc chloride.	Magnesium chloride.

Zinc chloride is formed from two molecules of hydrochloric acid by the replacement of the two atoms of hydrogen by zinc; magnesium chloride is formed in a similar manner by the replacement of the hydrogen by magnesium. Common table salt is *sodium chloride*, NaCl, and is derived from one molecule of hydrochloric acid by the replacement of the hydrogen by sodium. All these chlorides are *salts* of hydrochloric acid.

The white precipitate formed on adding silver nitrate to a solution of a chloride is *silver chloride*, AgCl, and its formation and insolubility in nitric acid is a test for hydrochloric acid and chlorides.

A SALT is a substance formed when the basic hydrogen of an acid is replaced by a metal.

The names of salts are formed from the name of the metal which they contain, and the name of the acid from which they are derived, the termination of the latter being modified. If the name of the acid ends in *ic*, the names of its salts end in *ate*, e.g., nitric acid forms nitrates, such as potassium nitrate KNO<sub>3</sub>, silver nitrate, AgNO<sub>3</sub>; sulphuric acid forms sulphates, as magnesium sulphate MgSO<sub>4</sub>, iron sulphate, FeSO<sub>4</sub>. If the name of the acid ends in *ous*, the names of its salts end in *ite*, e.g., nitrous acid yields nitrites, as sodium nitrite, NaNO<sub>2</sub>, silver nitrite AgNO<sub>2</sub>; sulphurous acid yields sulphites; hyposulphurous acid yields hyposulphites; hypochlorous acid yields hypochlorites, and so on.

Salts can be prepared in several different ways, some of which are of wide applicability.

(1) By the direct action of acids on metals, the reaction sometimes taking place with the dilute acid at the ordinary temperature, as in Expts. 39 to 42 or 65 to 68, sometimes only with the strong acid at a higher temperature (see Expt. 73 below).

(2) By the action of an acid on a hydroxide (p. 120). See Expt. 74.

(3) By the action of an acid on an oxide. See Expts. 75 and 76.

(4) By the action of an acid on a carbonate. See Expts. 77 and 78.

(5) By double decomposition, or an exchange of acid and metal between two salts. See Expts. 80 and 81.

EXPERIMENT 73.—Place 2 or 3 grammes of copper in a moderately wide test tube, cover it with strong sulphuric acid, and heat somewhat strongly,\* but not sufficiently to cause the evolution of heavy white vapours. Observe that a gas is given off with the same pungent disagreeable smell as the gas formed by the combustion of sulphur in oxygen. When the evolution of this gas ceases, or when all the copper has disappeared, allow the tube to cool, and *when quite cold* add some water, heat carefully for a short time, and filter. Concentrate the blue filtrate by evaporation until a thin film forms on the surface of the liquid, and allow to cool. Blue crystals will separate; they are copper sulphate. Dry them with filter paper and preserve them.

EXPERIMENT 74.—Dissolve 10 grammes ( $\frac{1}{2}$  oz.) potassium hydroxide (caustic potash) in 100 c. c. (4 oz.) of water, and to the solution add, very gradually and with constant stirring, some nitric acid previously diluted with four times its volume of water. Continue the addition of the acid until the liquid just ceases to turn red litmus paper blue; then concentrate by evaporation, and allow to cool. Long white needle-shaped crystals will separate; they are potassium nitrate KNO<sub>3</sub> (commonly called nitre or salt-petre), formed in the manner represented by the equation  $\text{HNO}_3 + \text{KOH} = \text{KNO}_3 + \text{H}_2\text{O}$ .

EXPERIMENT 75.—Take 5 grammes ( $\frac{1}{4}$  oz.) of zinc oxide (ZnO), which is easily purchased; add 25 c. c. (1 oz.) of water; heat nearly to boiling, and carefully add dilute sulphuric acid until the zinc oxide is just dissolved. Allow the liquid to cool, and white crystals of zinc sulphate will separate.† Dry them on filter paper, examine them carefully, and dissolve some in water and test with barium chloride. You will find that they are precisely similar to the zinc sulphate obtained by the action of sulphuric acid on the metal. The equation which represents their formation is  $\text{ZnO} + \text{H}_2\text{SO}_4 \text{ dil.} = \text{ZnSO}_4 + \text{H}_2\text{O}$ .

EXPERIMENT 76.—Perform a similar experiment with cupric oxide, CuO. (black oxide of copper). You will obtain blue crystals of copper sulphate, agreeing in all their properties with the copper sulphate obtained in Expt. 73. The equation in this case is  $\text{CuO} + \text{H}_2\text{SO}_4 \text{ dil.} = \text{CuSO}_4 + \text{H}_2\text{O}$ .

Notice that when salts are formed by the action of an acid on an oxide or hydroxide, the basic hydrogen of the acid does not escape as a gas, but combines with the oxygen or hydroxyl (OH) to form water.

EXPERIMENT 77.—Dissolve 10 grammes of potassium carbonate K<sub>2</sub>CO<sub>3</sub> (pearl-ash) in 100 c. c. of water; heat nearly to boiling, and *very gradually* add dilute nitric acid. Rapid effervescence will take place. Continue the addition of the acid until the liquid just turns blue litmus paper red; concentrate the liquid and allow it to cool. Crystals will separate, similar in all respects to those obtained in Expt. 74. They are, in fact, the same salt, potassium nitrate, formed in accordance with the equation  $\text{K}_2\text{CO}_3 + 2\text{HNO}_3 = 2\text{KNO}_3 + \text{CO}_2 + \text{H}_2\text{O}$ .

EXPERIMENT 78.—Perform a similar experiment with 10 grammes of crystallised sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>) (washing soda), using dilute sulphuric acid instead of nitric acid. The product will separate in white prismatic crystals which consist of *sodium sulphate* (Na<sub>2</sub>SO<sub>4</sub>) and water combined together. Dry them, examine them carefully, dissolve a small quantity in water and test with barium chloride, and keep the remainder in a well-corked tube. The formation of the sodium sulphate takes place in this way,  $\text{Na}_2\text{CO}_3 + \text{H}_2\text{SO}_4 \text{ dil.} = \text{Na}_2\text{SO}_4 + \text{CO}_2 + \text{H}_2\text{O}$ .

\* N.B.—Whenever you heat substances in test tubes, flasks, or similar vessels, take care that the open mouth of the tube or flask is directed away from you, in order to avoid injury in case the contents of the vessel should be projected from it.

† If the crystals do not separate, the liquid must be concentrated by evaporation.



## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### CHAPTER VIII.

HISTORY OF INSTANTANEOUS PHOTOGRAPHY CONCLUDED.  
SOME ACCOUNT OF THE LATEST RESULTS OBTAINED.

To describe at all fully the achievements in instantaneous photography of the last ten years would fill a volume of the AMATEUR PHOTOGRAPHER.

M. Lugardon, of Geneva, in 1883, obtained exceptionally good pictures of leaping horses; and Boissonnas, of the same city, rivalled his compatriot with his animal pictures (lions and tigers), portraits of young children, etc.

In 1883, M. R. Haensel, of Riechenberg (Austria), obtained the first photograph of lightning flashes, a feat which was repeated in 1884 by Dr. Kayser, of Berlin. In the same year Professor Mach, of Prague, photographed sound-waves, and also rifle-bullets which were moving with a velocity of several hundred feet per second. In 1883, the French physician, Dr. Charcot, obtained many instantaneous photographs of persons suffering from nervous diseases, insanity, etc.

*Trains in motion* have long been obtained, with their details, though travelling at the speed of "sixty miles per hour." Mr. Joseph Paget had several such in the Pall Mall Exhibition of 1880. Perhaps the first good photograph of an express train taken "broadside on" was that by M. Grassin, of the Paris express, medalled at Pall Mall in 1884.\*

*Yachting Scenes* in myriads have been secured. The pictures by Mr. W. H. Hyslop, medalled at Pall Mall in 1887, were very fine; but the two well-known professional firms who make a speciality of this work, Messrs. G. West and Son, Palmerston Road, Southsea, and Symonds and Co., 39, High Street, Portsmouth, have produced much splendid work.

*Breaking Waves* have been depicted in perfection by W. P. Marsh, of Waterloo Square, Bognor; though, as a study of an ocean surface, it is impossible to forget W. Mayland's picture "There is Sorrow on the Sea; it cannot be Quiet," medalled at Pall Mall in 1883.

*Animal Studies* at the "Zoo" and elsewhere have long furnished subjects for the camera. Messrs. Henry and T. J. Dixon, of 112, Albany Street, N.W., created a marked sensation by their studies of "Lions" and "Tigers" at the Pall Mall Exhibitions of 1879, 1880, etc. In addition, during the last two or three years, Major J. Fortuné Nott and Mr. Gambier Bolton have done magnificent work in the same direction. Neither should the wonderful and varied "Studies of Cats," by Harry Pointer, of Brighton, be forgotten. Surely these men must be "hypnotizers" as well as photographers; they appear to have such power over their subjects.

Readers of the AMATEUR PHOTOGRAPHER will not soon forget the grand work done by Louis Meldon, of Dublin, as shown by the reproduction† of his picture of "The Diver;" and again, his "Tennis Players," where the ball is seen in mid-air, perfectly round, although travelling at full speed when taken.

*Nadar Interviews Chevreul.*—On the Continent, that enterprising photographer, Nadar, of Paris, made a new departure in 1886 by "interviewing" the centenarian scientist, M. Chevreul, accompanied by a camera and a short-

hand writer. By their joint aid both the words and looks of the veteran were obtained, about thirty of the most characteristic poses being subsequently selected and printed; beneath each print were written the words which Chevreul had uttered at the instant depicted. In future cases of this kind, it is possible that the reporter may be replaced by the phonograph, so that the entire record will be "automatic."

In *Balloon Photography*, where the exposures—from the constant and complicated movements of the balloon—are necessarily instantaneous, Nadar has done excellent work; and with him we may name the late W. B. Woodbury, W. Cobb, and C. V. Shadbolt in England.

*Anschutz secures Instantaneous Pictures with Half-Tones.*—No one has achieved greater success in, perhaps, the most difficult part of instantaneous photography—the correct rendering of the half-tones—than M. Ottomar Anschutz, of Lissa. His negatives of objects in motion are to be numbered by thousands, and include projectiles in motion, birds, the human figure, etc. One, his famous "Stork" picture, was reproduced in the *Photographic News* for 1885, p. 38; and his "Man Throwing a Lance" (twelve successive pictures) in the same periodical for 1887, p. 516. His agents in England are Messrs. Erdmann and Zehanz.

*Instantaneous Photographs should be Collected and Studied.*—All who study instantaneous photography should obtain specimens of the work done by the masters of the art, to ornament their walls, and as showing the possibilities of photography in this direction. The unique power of the photographic art in allowing of the unlimited reproduction of its masterpieces seems scarcely appreciated by its votaries. One would naturally expect to find the walls of every photographer's house covered with examples of "masters"—Rejlander and Robinson, Blanchard and Bankart, Emerson, and Davison, Abney, and Donkin, *cum multis aliis*.

True it is that there are difficulties in the way of obtaining specimens of the work of many of our great amateurs, but surely some method of procuring examples could be devised. Every photographer's library ought to include albums containing the "choice bits" by Anschutz, Dresser, Meldon, and the various other workers to whose skill in "arresting motion," and fixing the fleeting phases of nature we have alluded.

*The Study of the Past Produces Excellence in the Future.*—We have now traced—imperfectly, it is true, but the limitations of space and the fact that we have been the first to attempt the task must be considered—the history of instantaneous photography from the time immediately succeeding the birth of photography down to the present day, a period of half a century; and the story has been one of continued and wonderfully rapid progress. Let us now turn to the practical side of things, and consider the requirements of the work, and how they may best be met.



*MOUNTS FOR PHOTOGRAPHS.*—Messrs. Hooper and Co, 5, Hand Court, Holborn, W.C., have sent us some most chaste mounts to be used for mounting photographs as Christmas, New Year, and birthday cards. They are of every variety of shape, colour, and price. We should strongly advise those who wish to send a card that will have some value to use Hooper's mounts and their own photographs.

*SOUTH LONDON PHOTOGRAPHIC SOCIETY'S EXHIBITION.*—We understand that Mr. W. F. Slater, of 169, Southampton Street, Camberwell, S.E., had a large assortment of cameras, lenses, shutters, tripods etc., on show, and many sample picture frames. Mr. Slater makes a speciality of this work, and exercises considerable taste and judgment, which was amply shown in the many frames made by him, in which exhibitors' photographs were mounted.

\* The picture was reproduced in the *Photographic News* for 31st October, 1884.

† AMATEUR PHOTOGRAPHER, 30th November, 1888, p. 345.



## A "Dictionary of Photography."

A GREAT many fancifully contrived and fearfully and wonderfully made flies, in the shape of books, have been reeled out to catch the amateur since he began to look for entertainment in photographic waters. The "Dictionary of Photography," by Mr. E. J. Wall, just published, cannot be classed with the sort of bait we have described. A more generally useful book for both practical and amateur photographers has not been issued for a long time. While one may, with propriety, gourmand its contents with perfect safety and much profit at one sitting, yet it is rather a book for emergencies—a condensed cyclopædia or ready reference book, so to speak, to which one may run for help when, in the midst of work, emergencies occur, or when a fact or a figure is wanted which memory fails to bring to the surface as quickly as the occasion requires.—*Wilson's Photographic Magazine*.

But the work before us contains much more than the A B C to the subject, beyond which limit books compiled for the erudition of non-specialist readers, as a rule, are disinclined to travel. On the contrary, it affords a complete photographic picture of the art itself, whilst the simplicity and clearness with which the author expounds the scientific secrets of the camera render his work perfectly intelligible to the most mechanical intellect. Most text-books on photography presume too much on the student's previous acquaintance with the subject which Faraday made his own. Elementary chemistry, however, has been wisely placed in the front by the present author. The focussing and developing processes bear an intimate relation to each other in actual practice, and the connection has not been lost sight of in Mr. Wall's Dictionary. Indeed, in every branch of the art, from the full-sized apparatus at the top, down to the detective camera or Kodak at the bottom, the "Dictionary of Photography" will be found an invaluable *vade mecum*.—*Star*.

See also over forty newspaper reports, which speak of the "Dictionary" as the most useful and handy work on photography yet published. Following is a list of articles contained in the work:—

Aberration	Cabinet	Diameter
Accelerator	Calcium, Chloride of	Diaphragms
Achromatic	Caloric Rays of the Spec-	Diffraction or Inflection
Acids	trum	Diffused Light
Actinic	Calotype, or Talbotype	Dish
Actinograph, Actinometer	Cameo	Dispersion
Aerial Perspective	Camera	Dissolving Views
Agent	Camera Lucida	Distance
Alabastrine Process	Camera Obscura	Distilled Water
Albertype.	Camera Stand.	Distortion
Album	Canvas, Printing on	Divergence
Albumen	Cap	Dodging Negatives
Albumenised Paper	Carbon or Autotype Process	Doublet Lens
Alcohol	Carte de Visite	Drachm
Alkali	Ceramic Photographs	Drop Shutter
Alkaline Development	Changing Box	Drying Box
Alum	Chiaroscuro	Dry Plates
Amber	Chloride of Lime	Dusting-in Process
Ammonia	Chrome Alum	Eau de Javelle
Ammonium Bichromate	Circle of Least Confusion	Ebonite
Ammonium Bromide	Clearing Bath	Edging
Ammonium Carbonate	Cliché	Elemi
Ammonium Chloride	Cloud Negatives	Eliminator, Hypo-
Ammonium Iodide	Collodion	Emulsion
Ammonium Oxalate	ColloTYPE, Lichtdruck or	Enamelling Prints
Ammonium Sulphocyanate	HelioTYPE	Enamels
Angle, Wide-	Colour, Effect of, in Photo-	Encaustic Paste
Angular Aperture	graphy	Enlarging
Aperture of a Lens, Work-	Colour of the Film	Equivalent Focus
ing	Colour, Photography in	Ether
Aplanatic	Natural	Exposure
Apparatus	Colouring Photographs	Fabric, Golden
Aristotype	Combination Printing	Fading
Artificial Light	Composition	Fahrenheit
Artotype.	Concave	Falling Front
Astigmatism, or Astigma-	Concave, Concavo-Concave,	Ferrotypes
tion	Concavo-Convex Lens	Field of a Lens
Astro Photography, or As-	Condenser	Film
tronomical Photography	Conjugate Foci	Film Photography
Autotype Process.	Contact, Optical	Fixed-Focus Lens
Background	Contrast	Fixing
Backing Plates	Convex	Flare
Balance	Copying	Flatness [fluoric Acid
Bath	Curvature of the Field	Fluorhydric, or Hydro-
Beech's Developer	Cutting Prints	Fluorine
Beechey's Emulsion Process	Cyanotype	Focus
Bellows	Daguerreotype	Focussing, Aids to
Biconvex	Daguerreotype, to Clean	Focussing Cloth
Bifocal Camera	and Copy	Focussing Glass, or Com-
Binocular Vision	Dallastint	pound Focuser
Black Varnish.	Dammar	Focussing Screen
Blackening	Dark-Room	Fog-
Blanchard's Brush	Dark Tent	Frilling
Blisters	Decomposition of Light	Fuming
Blue Printing Process.	Definition	Gallon
Blue Tones in Prints	Deflection	Gamboge or Camboge
Blurring	Density	Gelatin
Books on Photography	Depth of Focus	[sion Paper
Brilliance	Detail	Gelatino-Chloride Emul-
Broken Negatives	Detective or Hand Cameras	Glass
Bromide Paper	Developer	Glycerine
Bromides	Development	Gold
Bronzing	Dextrine	Gold, Chloride of
Buckle Brush	Dialactic	Gold Hyposulphite
Burnishing	Dialyser	Grain

Gramme	Mounting	Rolling Prints
Green Fog	Muriate of Ammonia	Ruby Light
Ground-Glass	Muriatic Acid	Sal Ammoniac
Group	Naturalistic Photography	Salted Paper
Gum Arabic	Negative	Saltpetre
Gum Dammar	Negative Storing	Sandarac
Gum Dragon	Non-Actinic Rays	Satin, Printing on
Gum Guaiacum	Obermeyer's Process, or	Screen, Coloured
Gum-Cotton	Lichtkupferdruck	Sel d Or
Halation	Objective	Sensitised Paper
Half-Plate	Oil	Sensitometer
Head-Rest	Oil Paintings, to Copy	Shutters, Instantaneous
Hectogramme	Opacity	Side Swing or Shifting
Hectolitre	Opalotype	Front
Hectometre	Optical Centre	Silk, Printing on
Heliochromy	Optical Lantern	Silver
HelioTYPE Process	Optics	Silver Albuminate
High Lights	Orange Light	Silver, Ammonio, Nitrate of
History of Photography	Orthographic and Ortho-	Silver Bromide
Hydrogen	scopic	Silver Chloride
Hydrogen Peroxide	He'iotype Process	Silver Iodide
Hydroquinone	Hydro-	Silver Nitrate
Hydroxylamine	chloride	Silver Oxide
Hypo	Ox-Gall	Silver Sulphide
Image	Oxygen	Sky Shade
Image, Latent	Oxy-Hydrogen, and Oxy-	Slide, Dark
Incidence, Angle of	Calcium, or Drummond's	Slide, Lantern
Indian Ink	Light	Soda, Bicarbonate of
Ink Process	Packing Plates	Sodium Acetate
Insensitiveness	Palladium	Sodium Carbonate
Instantaneous Lens	Panel	Sodium Chloride
Instantaneous Photography	Paper, Albumenised	Sodium Citrate
Instantaneous Shutters	Paper, Plain, or Matt-	Sodium Hyposulphite
Insensification	Surfaced	Sodium Nitrate
Iridescent Stain	Paper, Sensitised	Sodium Phosphate
Iron, Ammonio-Citrate of	PapyroTYPE, or Papyro-	Sodium Sulphite
Iron, Ammonio-Sulphate of	graphy	Sodium Tungstate
Iron, Oxalate of	Parabola	Solar Camera
Iron, Perchloride of	Paste	Specific Gravity
Iron, Sesquioxalate of	Pearlash	Spectroscope
Iron, Sulphate of	Pellet's Process	Spectrum
Isinglass	Pellicle	Squeegee
Isochromatic or Ortho-	Pencil of Light	Stains
chromatic Photography	Perspective	Stand
Ivory	Phosphorus	Stannotype
Ivory Black	Photo-Engraving	Starch
Japan Varnish	Photography	Stereoscope
Kaolin	Photo-Lithography	Stop
Lac	Photometer	Stripping Film
Lamp	Phototype	Sublimite, Corrosive
Lampblack	Pinhole Photography	Sugar of Lead
Landscape Lens	Pinholes	Sulpho-Pyrogallol
Lantern, Optical	Pizzighelli's New Printing-	Sulphur
Lantern Slides	Out Process	Sulphur Toning
Latent Image	Platinotype	Swing-Back
Latitude of Exposure	Platino-Uranotype, Mer-	Symmetrical Lens
Lead, Acetate of	curo-Uranotype, Palla-	Talbotype
Lead, Toning with	diotype	Test Papers
Least Circle of Aberration	Platinum	Thermometer
Lens	Platinum, Perchloride of	Thinness of Negative
Levelling Slab	Platinum Toning	Titles on Prints
Lichtdruck	Pneumatic Holder	Toning
Light	Poisons	Tragacanth
Light Fog	Porcelain Pictures	Transfers
Limelight, Chloride of	Portrait Lens	Translucent
Limelight	Portraiture	Transparencies
Lime Water	Positive	Transparent
Line Drawings, To Copy	Potassium Bichromate	Under-Exposure
Liquid Glue	Potassium Bromide	Uranium
Lithium	Potassium Carbonate	Uranium Printing
Lithium Bromide	Potassium Cyanide	U.S., or Uniform System
Lithium Chloride	Potassium Ferridecyanide	Varnish
Lithium Iodide	Potassium Ferrocyanide	View-Finder
Litmus	Potassium Iodide	View-Meter
Liver of Sulphur	Potassium Metabisulphite	Vignetting [Prints
Loss of Tone in Fixing	Potassium Nitrate	Washing Negatives and
Lunar Caustic	Potassium Nitrite	Waxes
Luxograph	Potassium Oxalate	Waxing Negatives
Macro-Photography.	Potassium Permanganate	Wide-Angle Lens
Magic-Lantern	Potassium Sulphide	Weights and Measures
Magic Pictures	Powder Process	Wet-Collodion Process
Maglip, or Meglip	Principal Axis	Woodburytype
Magnesium	Printing	Yellow Fog
Magnesium Sulphate	Pyroxline	Yellowness of Prints
Manganese Binoxide	Rapidity of Lenses	Yellow Stain
Manipulation	Rapid Rectilinear	Zinc
Masking Skies	Reanunr	Zincography
Masks and Discs	Redevelopment	Usual Sizes of French and
Mastic, or Mastich	Red Fog	Italian Dry Plates
Measles	Reduction (in Size)	Sizes of Glass, Mounts
Measles of Prints	Reduction of Density	Paper, etc.
Measures	Reflected Light	Sizes of Mounts
Meniscus	Reflection of Light	Sizes of Albumen Paper
Mercury	Refraction of Light	Freezing Mixtures
Mercury, Perchloride of	Rembrandt Portrait	Table of the Elements
Mercury, Subchloride of	Removal of Film	Table of the Formulse of
Metallic Spots	Residues	Chemicals used in Photo-
Methylated Spirit	Restainer	graphy
Metric System	Retouching	Table of Solubilities
Micro-Photography	Reversal	List of Dry Plates and Sen-
Minim	Reversed Negatives	sitometer Numbers
Mirror, Reversing	Rising Front	Cadett's Table, showing
Mirror Silvering	Rive's Paper	the Relative Rapidities
Monocular Vision	Roller Slide	of Plates of Varying Sen-
Mountant		sitometer Numbers
		Sundry Formulae.

The Second Edition, Revised and Enlarged, of the "Dictionary" is now ready. It makes a handsomely bound volume of 300 pp., is illustrated with 70 diagrams, and is published at the low price of 2s. 6d. London: Hazell Watson, and Viney, Ltd., 1, Creed Lane, E.C.



## Photographing in Iceland.—IX.

### THE ROUND TRIP IN DETAIL.

WE mustered at breakfast on our first morning at Thingvallir, still stiff, but in excellent spirits. Some of us had been under canvas all night; others had had more civilised quarters in the guest chamber of the priest's house hard by. The morning meal over, we commenced explorations in the neighbourhood.

Our first destination was the Almannagja or "All-Men's Rift," an enormous earthquake rift almost impossible to describe, and which, altogether independent of its terrible appearance, is a most plaguey curious thing. Imagine yourself riding complacently, and looking forward at an immense lake covering some forty square miles of country. Suddenly, without warning, your pony comes to an abrupt halt. You look down and there, at your pony's fore feet, is a frightful rift running to the right and left for about two miles. The wall, on which you are on the edge, is as clean down the face as if it had been cut with a knife. It is some eighty feet deep, and as you peep over you shudder. The Almannagja is a rift indeed.

Once upon a time, when the Icelandic parliament held its meetings at Thingvallir, the people used to congregate on a slope of the eastern wall of the rift. From this point of vantage, "strangers in the house," as they were, they had an excellent view of the business in progress below. Sometimes the "business" took the form of an ordinary, well-ordered administrative meeting; at other times certain of the chiefs settled their differences by combat to the death. But it was all one to the assembled populace—at least, so far as seeing plenty for their money was concerned. The Almannagja may be descended by means of a ticklish dangerously-sloping causeway of rock, which most visitors to Iceland prefer *not* to ride down. One feels much more at home on one's feet just here. I must not forget an adjunct of the rift in the shape of a river, which has a clear leap through a gap in the wall on the eastern side. In the pool below this cascade, it is recorded, women were at one time publicly drowned for certain offences against the marital ties.

A walk along the bottom of All-Men's Rift is not the most enjoyable of undertakings. The promenade is attended with risks. The rocks and stones overhead appear just about to fall. Occasionally they do come crashing down from the side opposite to the straight wall, on which our pony wisely pulled up. In summer, however, these falls are rare. But we undertook the stroll along the right for business purposes. The camera-men had a real good time down there for several hours, and, I believe, with satisfactory results.

Rain in the afternoon for some time rather upset arrangements. Two of our party left us, going to the Sog for fishing. We heard, when we met them again in Reykjavik, that they had a splendid time, keen sportsmen as they were. Salmon-trout abound in the Sog about July; the fish, according to Captain Burton, lying above the first foss thick as water plants. Taken all round, Iceland is a grand country for piscators, and every disciple of Izaak Walton who has tried the Icelandic streams and rivers has, as a matter of course, "made the finest haul," etc. One authority swears to catching twenty-five salmon in one day in the Sog—one weighed 7 lbs., and only two weighed under 6lbs. I think our champion said he caught forty fish, the smallest weighing 4 or 5 lbs. This, we thought, was good, honest sport.

The lake at Thingvallir contains fish, I suppose, but we were not after them. The water is splendid for bathing, but one doesn't want to stay long in it—it's clear but icy

cold. We had a magnificent sunset over this lake, one of the most gorgeous, brilliant, and entrancing any of our party had encountered anywhere. Our artist was painting at it until 11.30.

I have a little anticipated events by not referring to the Althing proper, the hill where former representatives of "Ultima Thule" assembled. The spot is practically a tract of ground severed from the plain by two long earthquake fissures. It is about forty feet wide, and extends 700 or 800 yards in length. Mr. Thordahl, the promoter of the trip, told us that once a fugitive jumped across one of the gorges, and by so doing eluded his pursuers and saved his life. Of course, our guides showed us the exact spot where the jump was made. That jump was a marvel. But jump or no jump, the Althing, the Almannagja, and Thingvallir generally is a wonderful district. It afforded our camera-men endless opportunities, and a right royal attack was made on all sides. Thingvallir, as a whole, is a tract of about four miles in length and a little less in width, lying at a lower level than the country round about. The sinking, in all probability, was due to volcanic agency, presumably at a pre-historic era. The Almannagja lines the district on the west side, and the Hrafnagja-Raven Rift runs on the east. A lake borders it on the south. The Tract, as it recedes from the lake, slopes easily upward, the rifts getting deeper and wider as the subsidence becomes less. One could write a book on Thingvallir, in fact, and this being so I had better not attempt any further description of the locality. Lord Dufferin, who, by the way, if he was not an experienced photographer, had a Jew's eye for the artistic in nature and art, says of the district, "A lovelier scene I have seldom witnessed. In the foreground lay huge masses of rock and lava, tossed about like the ruins of a world, and washed by waters as bright and green as polished malachite. Beyond, a bevy of distant mountains, robed by the transparent atmosphere in tints unknown to Europe, peeped over each other's shoulders into the silver mirror at their feet; while here and there, from among their purple ridges, columns of white vapour rose like altar smoke toward the tranquil heaven." In addition to the remarkable natural beauties of the district, the church, altar, parsonage, etc., in all their simplicity, are excellent subjects for the artist in whatsoever walk.

We were loth to leave Thingvallir, but time was on the wing, and our jaunt was coming to its close. Fortunately, we had chosen a splendid route, and had still something to see.

(To be continued.)

HALATION is a subject which always attracts attention, and M. Cornu has contributed some valuable notes on this subject to the *Bulletin de la Société Française*. He found that the diameter of the halation is proportional to the thickness of the glass plate—the greater the diameter the weaker the halation. Halation is caused by every substance which diffuses light, such as an emulsion of sulphate of baryta in gelatine, enamelled glass, or simply Chinese white spread on glass, if optical contact exists. The halo is caused by the total reflection which the light diffused by the translucent film suffers from the back of the glass. It is formed by the diameter of the cone of the totally reflected places from the back surfaces with the front surface. This is proved by using plates of varying thickness, or by fastening a prism of 15 to 20 deg. to the back of the plate the halation is then elliptical and eccentric. If, instead of a glass plate, a sheet of Iceland spar is used, two halos are seen, one circular, corresponding to the ordinary ray, and one elliptical, corresponding to the extraordinary ray. The practical deductions from this are: (1) The thicker the glass plate the less the intensity of the halation; (2) halation is cured by coating the back of the plate with a varnish which must (a) in the dry state have the same refractive index as the glass, and (b) must also absorb the chemically active rays of light.



## The Abuse of Wide-angle Lenses.

By W. K. BURTON.

WE have often been told of the evils in the way of distortion, or exaggerated perspective, as I prefer to call it, that are likely to occur if a lens including a greater angle than the eye can readily include without motion is used—indeed, I should say that are certain to occur, except in the very rare cases where the object to be photographed is all in one plane, as in the case of copying a picture. Except in this case, the distortion is always there, but it depends much on the nature of the subject whether it is very pronounced (or, rather, recognisable) or not.

We have all been told, as I say, of this over and over again, and it is occasionally brought home to any one who has any natural idea of perspective by noticing the photographs of houses to let that are used for advertisements, and in other cases of such like work, and also, alas! in places where no such fault ought to be seen.

I thought, some time ago, that it might be interesting—on the principle of “combining instruction with amusement,” in accordance with the custom of the caterers for the amusement of children, youths and maidens, and various other people—to prepare a special set of photographs that would illustrate the defects above referred to, to such a degree as to bring the use of an abnormally wide-angle to a *reductio ad absurdum*. I have made such a set, and several of them are so far successful that I think they may be of interest to readers of the AMATEUR PHOTOGRAPHER, as a sort of frightful example of what to avoid.

Before giving a short description of the individual photographs, I shall describe the general method of production.

To make the full evil effect of a wide-angle lens evident, it is necessary to apply it to the photographing of some subject of which a part is comparatively very near the camera. To photograph such a subject, it is necessary to extend the lens somewhat, so that this near part may not be wildly out of focus, and this extension means increase of the focal length of the lens, and consequent increase in the covering power. If advantage is not taken of this increase in the covering power, the angle is reduced, and the full evil effect of the very wide angle is not evident.

Two things, then, are essential to get the best—or, rather, worst—effect. One is that the lens be a very wide one, and the other is that it be used on a plate considerably larger than that it will cover when a distant object is focussed.

The lens that I used for the photographs that I now

refer to is one of Wray's wide-angle rectilinear lenses. Its focus is  $4\frac{1}{4}$  ins., and when focussed on a distant object the lens will cover a circle of about 10 ins. diameter—that is to say, the particular one that I am now writing of will; I have had another that had not quite such great covering power. For some of the photographs the lens was racked out to about 5 ins., when it covered a circle of nearly 12 ins.; in other cases it was racked out to 6 ins., when it covered the whole of the 12 by 10 plates on which all the exposures were made. The smallest stop had to be used to bring the different planes even approximately into focus, and, the extension of the camera practically still farther reducing the angular aperture, the exposures had to average about ten seconds even in a fairly bright light out of doors.

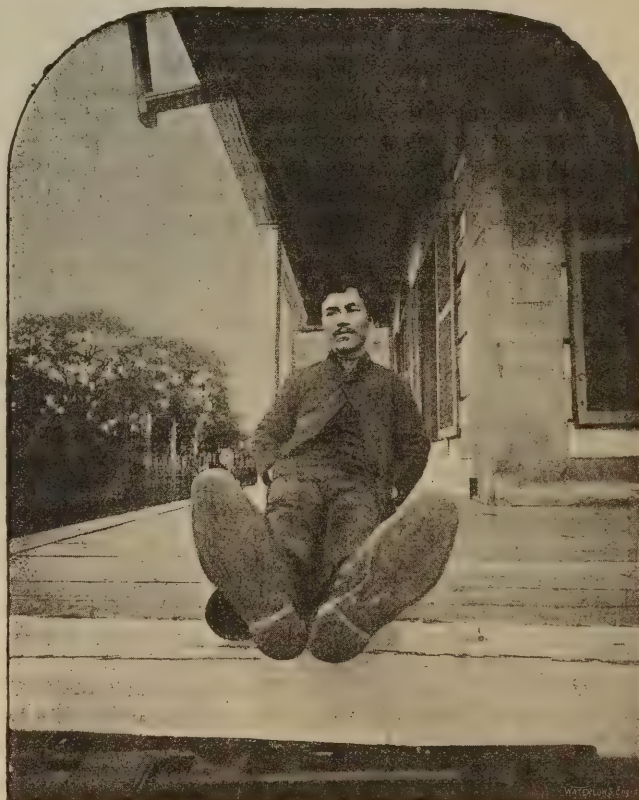
Now for the photographs themselves. No. 1, which may be named “Beetle Crushers,” calls for very little explanation, except to say that the sitter had feet rather below than above the average in size for his height. As a matter of fact, on looking at the posed sitter from a reasonable distance, the most conspicuous object was a very large packing case that I had pulled out on the verandah to support his back in the somewhat uncomfortable position that he had to sit in. This is so dwarfed in the photograph as to be barely noticeable. The distance from the lens to the feet of the sitter was about 18 ins.

No. 2 I call “A Tall Drink,” or, at least, that is the name that an American friend gave it. The enormous vessel to be seen in the “foreground” is indeed “tall” enough in appearance, but in fact it is nothing but a common German half-litre beer glass containing a modest half-pint of Dublin stout! It is, however, actually resting on the front edge of the baseboard of the camera, which is quite visible in the

photograph. There is a curious piece of minor distortion in this photograph. The general impression given is that the “sitter”\* is leaning his head away from the camera. Now this is a thing that might very naturally have been done to heighten the absurdity of the effect, but, as a matter of fact, the position was exactly that which would be assumed in taking a handled glass at arm's length from a somewhat high table.

I doubt if the next photograph will convey as much to English readers as they do to those who have been for some time in Japan. The “jinrikisha,” or hand carriage, is not a familiar sight in the streets of London, or, at any rate, was not when I left that city, but here it is the most conspicuous feature of all street scenes.

No. 3 represents a jinrikisha, with jinrikisha man, taken from the front. An idea of the amount of the distortion



No. 1.—Beetle Crushers.

\* A not very flattering portrait of the author.—ED : AM : PHOT :



will be got when I say that the length of the apparently enormous shaft that passes nearly across the whole picture is only 3 ft. 3 ins., that the whole length of the carriage—measuring from the ends of the shafts to the back—is only 6 ft., that the man in front is not more than 5 ft. 6 ins. in height, and that the young lady in the jinrikisha, who looks so small and far away, is very nearly as tall, and would only have to stretch out her hand to touch the back of the man in front of her.

The examples that I have shown are, of course, simple atrocities, intentionally produced. In fact, they are so ludicrous that it will be found that the like of them, if reduced to lantern slides, will considerably relieve the monotony of a too tame lantern exhibition, and a little ingenuity would, doubtless, result in the production of effects even more amusing than these that I show here. But my chief object in showing the results is to utter a warning. The photographs that I show are palpably absurd (even to the quite uneducated eye, but I have no hesitation in saying that by far the greater part of the ordinary work done by wide-angle lenses, and especially when the subjects are architectural, appear quite as absurd as these to the eye of one really trained in perspective).

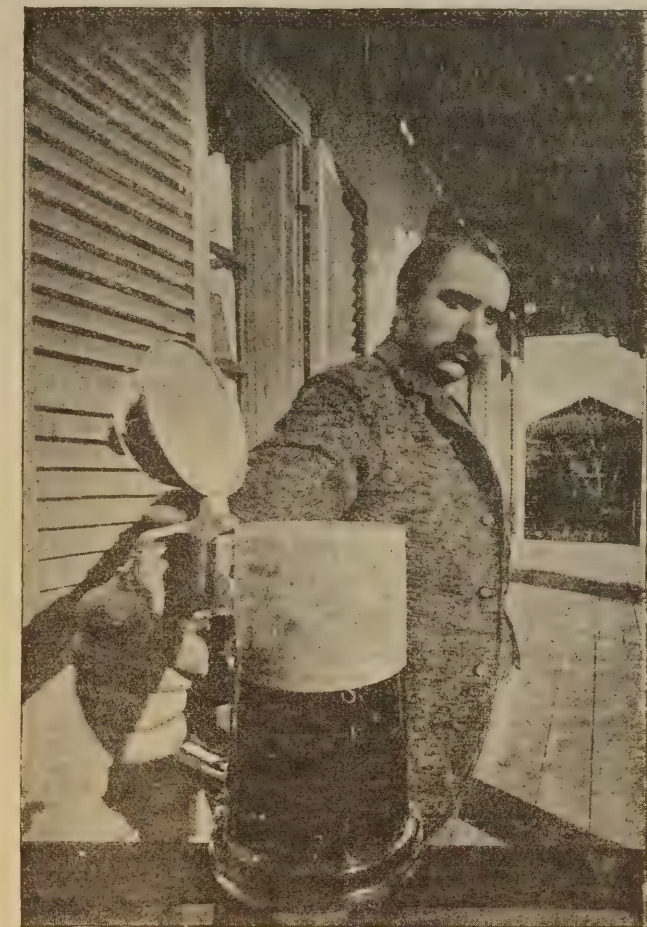
I repeat now, what has often been stated before by myself and others: *a wide-angle lens should not be used (to include a wide angle) except when it is impossible to use any other, and even then a picture can scarcely be expected as the result.*

## Optics.

By T. KIDD.

*Third Prize—Competitive Paper.*

LIGHT is the cause of the visibility of objects. The bodies which emit light like the sun, etc., are called *luminous* bodies. The *illuminated* bodies, on the contrary, are only visible when they reflect the light which they borrow from luminous ones. *Transparent* bodies let the light pass through them, while those called *opaque* prevent it, but at the same time there



No. 2.—A Tall Drink.

are no complete substances that are transparent or totally opaque, for even metals, as gold, silver, etc., if thin enough, let a little ray of light pass through them. Respecting the nature of light, according to Newton's corpuscular theory, it consists of small particles or rays sent forth with great velocity, as we see from the following example: the sun is supposed to be 92,000,000 of miles from the earth, and it takes eight minutes for the light to get here; thus we see that it travels about 190,000 miles per second. Light consists of straight lines or rays; this can be easily ascertained by letting a ray of light penetrate through a small hole in a window into a dark room; if we notice the light thrown on the floor (or whatever we may put to receive it), we see that it is always round, whatever may be the shape of the hole; but if we hold a sheet of paper obliquely to the rays, the spot will become an ellipse. The beam is round because the sun is round. If we were to draw lines from the hole shown on a piece of paper held at right angles to the rays through the hole in the window, these lines if continued will pass through different points of the sun. As all the rays cross at the hole, the image is inverted.

*The camera obscura* is an apparatus



No. 3.—The "Jinrikisha."



representing an artificial eye in which the images of external objects, received through a double convex glass, are exhibited in their natural colours on a white sheet or screen,

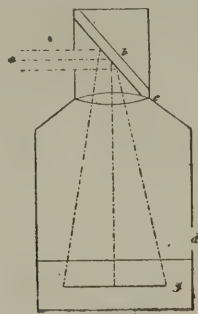


FIG. 1.

in the machine, in the focus of the glass. Fig. 1 represents the revolving camera. The rays coming from the object *a* are received at *b* by a mirror, inclined to the horizon at an angle of  $45^\circ$ , and placed in a square box. The mirror reflects the rays it receives to the convex lens at *c*, and they are there converged to a focus, and thus make the image of the object at *a*, which is visible through an opening at *d*.

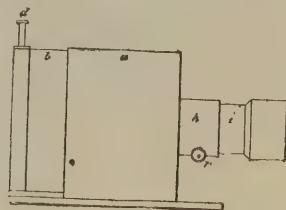


FIG. 2.

**Photographic Camera.**—In this machine no mirror is employed. The lens directly faces the object to be represented and throws an image of it on a screen of ground glass, which, when the photographer has obtained the object to his satisfaction, is replaced by a sensitized plate; he then admits the light upon the plate, which, acting upon it, produces what is called a negative. Fig. 2 is a form of this camera, although in our days, instead of one box sliding into another,

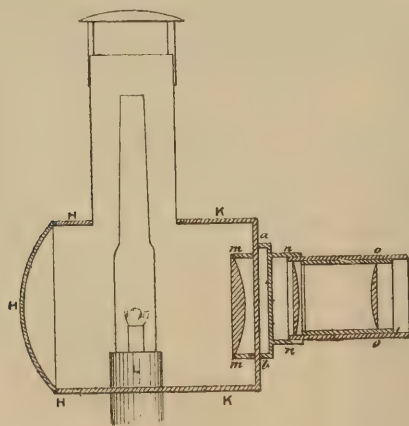


FIG. 3.

leather bellows are used, which makes the machine less bulky and lighter. At *i* there is a metal tube which contains the lens, and which by means of the screw at *r* can be made to slide into the tube at *h*. The box *a* which receives the box *b* is open at the back, while the latter is open in front. At *d* there is a groove where the ground glass is placed, and which

afterwards is substituted by a dark slide holding a sensitized plate.

**Magic Lantern.**—A machine invented by Kircher; it is another example of the same property of convex lenses. A small painted picture in transparent colours on a glass support, or a photograph, is placed behind the lens, the distance being a little greater than the focal length. The images are represented on a white screen in a dark room, which can be magnified to any size at pleasure. It consists of a closed box, K K (fig. 3), in which are placed a lamp L and a concave

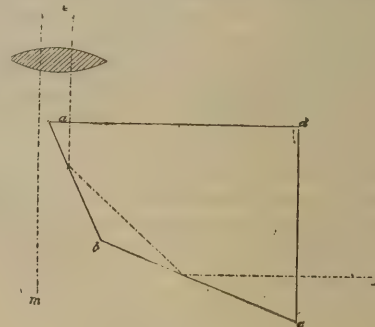


FIG. 4.

mirror H H H, which reflects the light of the lamp through the small hole of a tube in the side of the lantern, and which is made to draw out. At *m.m* the end next to the lamp is placed a plano-concave lens, and at the other a double-convex.\* Between the two lenses at *a b* are placed the lantern slides.

**Camera Lucida.**—An invention of the late Dr. Wollaston, for the purpose of facilitating the delineation of distant objects, by producing a reflected picture of them upon paper, and also copying or reducing drawings. In fig. 4 the object *f* to be traced is opposite the perpendicular surface of the prism *d c*; the rays coming from *f* pass through this sur-

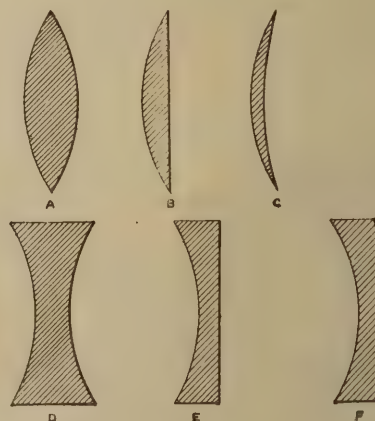


FIG. 5.

face and fall on the inclined plane *c b*, making an angle of  $67\frac{1}{2}$  deg. with *d c*; they are reflected at an equal angle from this to the plane *b a*, making with *b e* an angle of  $135$  deg., and are reflected again to the eye at *e*, which makes an angle of  $67\frac{1}{2}$  deg. The rays of light from the object proceeding from *h* to the observer's eye, the observer will see the image at *m*, and thus, by putting the paper there, he can draw the object *f*. In front, between *f* and *d c*, is placed a concave lens, for short-sighted persons; the convex for long sights, at *e*.

Lenses are of two principal kinds, concave and convex;

\* Instead of a double-convex, two plano-convex ones are placed, as at *n n* and *o o*.



transparent substances, usually glass, so made that rays of light passing through them are made to change their direction, and to magnify or diminish objects at certain distances. A is a double-convex; the humour of the eye is a double or bi-convex lens. B, convex or plano-convex, a rising on the exterior surface of a round form; gibbous is opposite to concave, which is a round form of the interior surface. The moon is gibbous between the quarters and full moon. C, concavo-convex—concave on one side and convex on the other; this lens is called more often a convex meniscus, the convexity being more decided; while F is a concave meniscus. D, double-concave—concave on both sides. E, plano-concave, that is hollow or rounded on the inner surface of a spherical body.



"FALLOWFIELD'S PHOTOGRAPHIC REMEMBRANCER."—This useful publication has just reached us, and contains much that, at this time of the year especially, is of use to all workers in photography. It, of course, deals mainly with the goods sold by Mr. Jonathan Fallowfield, and which are all stocked at 146, Charing Cross Road. Mr. Fallowfield is always quick to take up novelties, and we notice that he includes Moore's lantern slide frames, Shennstone's enlarging lantern and stand, and Ransom's copying apparatus, all of which have received attention at our hands. It will doubtless be convenient for many of our readers to call at Fallowfield's and see the actual goods, which we have described to the best of our ability. Mr. Fallowfield now publishes a "Facile" pamphlet, and in his "Remembrancer" reproduces four views taken with this well-known camera, two from negatives by Dr. Ringrose Atkins, and two by Mr. J. Oswell Bury, both regular contributors to our competitions, having entered as recently as the Lantern Slide Competition now being adjudicated upon.

To "KODAK."—Sure "ould Oireland" is the place where they have some fun with the camera! Mr. O'Brien has "kodaked" his oppressors (which is much better than shooting them), and the result is a splendid advertisement for the Eastman Company, and material for lots of lantern slides to liven up Gladstonian meetings in England. Perhaps the best thing that was done was the chalking of the coats of a posse of police engaged in a certain fray, the scene being then photographed. The *Saturday Review* hits it off splendidly in a poem on the subject, entitled "The Bravest, by Long Chalks"—

"But, begorra! I wish ye had seen that ould divil,  
The District Inspector, me boy, call a halt;  
Wid a warnin' to Mistor M—on—ll to be civil,  
Since chalkin' the pollis amounts to assault.

"He'd have tuk off the constables' coats and have brushed 'em,  
Foreinst of us all, but bedad! 'twas too late;  
For Pat and his nate little camery rushed 'em,  
And, chalk mark an' all, they were fixed on the plate."

CHROME ALUM.— $\text{Cr}_2\text{SO}_4\text{K}_2\text{SO}_4\text{H}_2\text{O}=951$ . This is a deep purple crystalline salt, soluble one part in ten of cold water, insoluble in alcohol. Its solution is purple by reflected, and reddish by transmitted light. It is used for clearing negatives, etc. It is also used in the preparation of emulsions for dry plates to prevent frilling.—*Wall's Dictionary of Photography*.

BATH FOR ORTHOCHROMATISING ORDINARY DRY PLATES.—In a recent number of the *Photographisches Wochenblatt*, Herr Gaedicke contributed a brief note on the formation of erythrosinate of silver, which varies in composition according to the method of preparation, i.e., if the erythrosin is added to the silver or vice versa. The precise formula for the preparation of erythrosin silver, richest in silver, is as follows: Dissolve seventeen parts of silver nitrate in distilled water, and add twenty parts of erythrosin dissolved in water, shake well, and add seventeen parts more of silver nitrate, allow to stand twelve hours with frequent agitation, then add a few drops of erythrosin solution to decompose any free silver; the erythrosin silver is allowed to settle down, the supernatant liquid decanted, and the precipitate dissolved in ammonia, and used for bathing plates for orthochromatic work. According to a recent work, "Die Orthoskiagraphische Photographie," by David and Scolik, the so-called bath plates are far superior in colour sensitiveness to those prepared with emulsion dyed in the manufacture. Eder and Vogel, and other experimenters, also hold this opinion.

## Lighting.\*

This paper is not written with the idea of giving any of the older heads anything new, but as a starter, in hopes that we may hear from some of them, and get more practical ideas than I am able to give.

I was somewhat surprised at receiving a request from our worthy President, calling for a paper on lighting, and no doubt you will all be glad to learn it was to be a short one.

The question is, "What is Lighting, and is it best to know it on scientific principles, or to train the eye to know when the lighting is correct?"

Did you ever stop to think, while lighting a subject, why you move the curtain a trifle higher, or the side curtain a trifle lower, and see how long it would take to give a more satisfactory answer than that it did not suit your eye, as it was, but by that movement it was satisfied?

Now, how can the eyes be trained? Of course, we must know the principles of light and shade first. These I do not propose to speak on, as it would take too much time, there being so many books published on this subject; so I will only give my own experience in study, and there may be a good point in it all somewhere, I hope.

After working at the business some time, I found the only practical chance to study lighting was when some one was paying for what they thought a graduate's work (not a student's), and while making my sitting, my thoughts were so busy on all details that I had no chance to give my eyes the necessary training, so I made and placed at a window a light about three feet long, in the same proportion to the one I was then working with, and used as my subjects small dolls, and at my leisure, with my little dumb subjects, experimented with light, and in that way spent many a happy and profitable hour, and became quite in love with my models, because they never dictated to me, and not one of them ever said they would as soon have a tooth pulled as sit for a picture.

On the floor of my model lights I made a large circle, and found by placing my subjects on, and moving them around the circle, I had produced almost every light that is needed in portrait work. When tired of portrait work, I then tried fancy lightings and groups, trying to reproduce a light I saw in "so and so's" photo, or in a painting, or a lighting in a street car.

Did any of you ever notice the number of different lightings you may see in a car? There are more chances to study good lightings there than many are aware of.

If I had an appointment with a subject where there was a chance to make something nice, I would get my little models and have a practice before the subject came, thereby ascertaining exactly what I wanted, and where to place my subject.

After leaving my model light I always seemed to have an imaginary circle in my operating room, and know where to place a subject for any light I might want.

There is fully as much in lighting a face as in expression. If you take a subject with a drooping of the mouth on one side, or strong lines about the nose and mouth, and make what some call a "shadow lighting" (why they call it so I never have been able to find out), you will make the lines very prominent, causing more work in retouching, and not as satisfactory a finished print as if a plain soft lighting had been used.

In lighting white drapery I advocate posing the figure well under the light, and with the use of the head screen and reflector, often the light 'on the face only, leaving the drapery strong and bold. Some operators object to the use of the screen or reflector. I have worked under lights where I found it unnecessary to use, the light being ground-glass, and always soft. I have also worked under a clear glass light, and used no screen, because my customers did not see the difference, as we were both happy, and our eyes satisfied, but as my eyes received more training I found I had to improve my work, or close my eyes.

I once worked for a gentleman who had posed a subject in a white dress about four feet back of the open light, and got a pretty light on the face by turning it from the light. But the drapery? Well, when I had developed the plate it was condemned, because I had not made good in the dark-room what he had ruined under the light.

Now, my brothers in the profession, if you find anything in my paper that is weak and needs intensifying, do your intensifying.

\* Read before the Convention at Washington by E. P. King.



## Science Notes.

PHOTOGRAPHERS in the midlands will find the article on "Amy Robsart, Kenilworth, and Warwick," by Mr. W. H. Rideing, which appears in the Christmas number of *Scribner's Magazine*, of special interest.

Workers in the home counties will study with great pleasure Mr. Hughes' new book on "Windsor Forest, Sunninghill, and the Great Park" (published by Ballantyne, Hanson, and Co.). We can imagine with what pleasure and profit the camera might be used to produce a companion volume of photographs illustrating this book.

It appears that new asteroids—little planets—are being discovered at the rate of one hundred in every eleven years. Asteroid No. 100 was discovered by the late Professor Watson, at Ann Arbor, U.S., in 1868; asteroid No. 200 by Professor Peters, at Clinton, U.S., in 1879; and the third century of these tiny members of the solar system has just been completed by one which was seen on September 9th, 1890, by M. Charlois, at Nice. The new photographic map of the heavens will, when completed, render the most valuable aid in this work, and additions to the list will doubtless take place much more rapidly in the future than in the past.

Rubbings of the monumental brasses which adorn many of our churches are best made by covering the brass with a sheet of highly-glazed tissue paper, which is then rubbed with a mixture of blacklead and linseed oil, applied by means of a piece of wash-leather. Such rubbings are most faithful, and can be excellently reproduced by photography; while, as a rule, it is almost impossible to photograph the brass direct. A capital book on monumental brasses has recently been written by the Rev. H. W. Macklin, and published by Sonnenschein.

At the meeting of the Zoological Society on November 4th, the Secretary exhibited, on behalf of Dr. A. B. Meyer, a coloured photograph of a singular variety of that rare bird, the Rose-coloured Pastor, with a red head, obtained near Sophia.

By photographing its spectrum at frequent intervals, Mr. Fowler has just proved that Vega, one of the brightest stars of the northern heavens, is in reality a double star, composed of two suns separated by a space of five millions of miles, and revolving round a point midway between them, with a velocity of 370 miles per second. Each of the twin stars has about eleven times the mass of our own sun!

*Nature* for November 20th contains reproductions of two admirable photographs of "luminous clouds," with a descriptive article by Mr. O. Jesse, of Steglitz, near Berlin. These clouds are seen most frequently soon after midnight; and they are at the astonishing height of from fifty to seventy miles. The highest clouds observable in the daytime (cirrus clouds) attain a height not exceeding ten miles. What the nature of "luminous clouds" may be is at present quite undeterminable.

Oppenheim, of Berlin, has just published a valuable book on "Retouching," by Wilhelm Kopske. Although only containing about seventy pages, it is as valuable and practical a work as could be desired.

It is with the greatest pleasure that I hear of several societies taking up the duty of utilizing the work of their members for the benefit of the young, the poor, and the afflicted. To aid our public elementary schools, workhouses, hospitals, etc., in the fulfilment of their tasks is one of the noblest objects which could be set before the photographer, and one which he is well able to perform. The (too often) bare walls of such institutions can be relieved by our productions, while an occasional "lantern show" will give new ideas to the young, and recall pleasant memories to the old. Think of the thousands of children in our great cities who have never seen a corn-field or a forest, a real river, or a snow-topped mountain! I am certain that the council of every photographic society will easily be able to find among their members those who are able to contribute lanterns, lantern slides, and men who can display them to the best advantage. I feel sure, too, that such work will largely enhance the local position and popularity of any society taking it up. The AMATEUR PHOTOGRAPHER led the way in this good work, years ago, but there is room for any amount of local effort. During the last ten years I have given about twenty "lantern-shows" per annum, to audiences of from 300 to 700 Board-school children, and I never wish for more attentive or interested hearers. About fifty "instructive" slides

—landscapes, astronomy, wild animals, etc.—then forty or fifty "humorous" slides, with a dozen chromatropes—such is the programme I recommend. One good man to manage the lantern, and another—with a loud, strong voice—to describe the slides. On no account should the length of the entertainment exceed an hour and a half. Use the mixed jet light, and try to get a brilliant picture twelve feet in diameter. Friday night will be found to be by far the best evening for ordinary school shows, as the labours for the school week close on that day.

Messrs. Cooper and Andreae appear to have had quite an adventure while holiday-making on French canals in the Vosges district. On arriving at Nancy they were arrested on a charge laid by a functionary from Epinal to the effect that they had been guilty of photographing in that mountainous district which forms part of the eastern boundary of France. They were, however, able to satisfy the Maire of Nancy that their photographs were not likely to aid the general of an invading army, and so they were released.

## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

ON Thursday, November 20th, Mr. Pringle gave an address on "Some Old Processes of Making Lantern Slides."

Mr. H. M. Elder, M.A., occupied the chair.

Previous to the lecture, Count Primoli, of Rome, handed round a large and excellent series of instantaneous photographs and other larger work of his own production. An exceptionally interesting one represented an indoor function, with the Pope seated in full ceremony. This had been given 10 seconds, detective fashion, but the figures during the time had not moved. To show the energy and enthusiasm of amateurs in Italy, it was observed that Count Primoli had made over 30,000 exposures in the last two years or so, and sets his little photographic account for that period at £2,000.

Mr. Pringle, in his lecture, commenced by gainsaying assertions to the effect that lantern slide pictures did not come within the domain of art. He insisted on a high scale of lighting, clear shadows, and warmth of colour. He sportively suggested that the screen pictures could easily be made as naturalistic or as definite as the spectator liked, by varying his distance from the sheet, and if rough surface was the aim, then all that had to be done was to use a good fuzzy travelling rug as a screen. He then proceeded to give the formulae, working details, and distinctive characteristics in connection with several old processes—dry collodion, wet collodion, collodio-albumen, etc.—and he illustrated his remarks by exhibiting on the screen comparative slides in the several processes.

Some discussion followed, Messrs. England, Wellington, Humphery, Cembrano, and the Chairman taking part therein.

A vote of thanks was passed by acclamation.

DEVELOPER FOR INSTANTANEOUS WORK.—A contributor in the *Photographisches Rundschau* states that he has obtained the best results with a developer of the following composition:—

Hydroquinone	..	..	..	..	25 grms.
Sodium sulphite	..	..	..	..	200 "
Water	..	..	..	..	1,000 c.c.
Carbonate of soda	..	..	..	..	375 grms.

This developer has been used at least six months old, if not older, with excellent results. The method of using it is as follows:—"I develop in two dishes; in one I keep old developer, and in the other new. I commence development in the old, and as soon as the lights have appeared, I place the plates—if I am developing instantaneous work—into the fresh or only little used developer, so that the deeper half-tones appear. I do the same for reproductions, only that with these the stay in the fresh developer is very much shortened. That the old developer is sometimes pretty strongly discoloured, and that this colouration is imparted to the negatives, is just what I want, as the blue-black tone which the plates show which have been developed with pure hydroquinone permits too much light to pass through in the delicate half-tones."



## Exhibitions.

### THE EDINBURGH PHOTOGRAPHIC EXHIBITION.

(By our District Editor.)

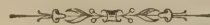
THE Edinburgh Photographic Exhibition, which was opened so auspiciously on the 14th inst., has had to contend against a period of very bad weather, and in the end of last week it also suffered from a huge counter attraction in the shape of a magnificent chrysanthemum show, but notwithstanding these drawbacks, it received a very fair patronage, and the Council of the Edinburgh Photographic Society look forward with hope. They have already sold over 1,000 season tickets, which is in itself a considerable revenue, and as each season ticket-holder is an "infected area" in the sense of bringing visitors, there is good ground for the hopes of the promoters. On Wednesday afternoon there was a musical promenade, which was pretty well attended. What, however, offers to be the principal attraction at the Exhibition is the Friday evening lectures. These, besides being useful to those who practise photography, will serve, through the Press notices, to keep the Exhibition before the public, and in that way to benefit the undertaking.

The first lecture of the series was given last Friday night, by Mr. Wm. Lang, jun., F.C.S., the President of the Glasgow Photographic Association, before a large and exceedingly appreciative audience. Mr. Lang is a successful amateur. He was introduced by Mr. H. Blanc, the President of the Edinburgh Society, as an enthusiast in the work of photography, which he truly proved himself to be in the course of his very able address. The subject was "A Historical Sketch of Photography," not certainly a heroic subject, but a most fitting one for an introductory lecture. Beginning with the remark that the popular scientific pastime of our day was undoubtedly photography, Mr. Lang went on to treat of the early days of the art, even going back to the days prior to its discovery, when, in 1760, it was foretold by a French writer. Then in rapid succession, and in well-constructed sentences, he proceeded to describe the works of Baptista Porta, Hooke (of the portable camera), Wedgwood, Niepce, Daguerre, Talbot, the Herschels, Ponton, Hunt, Becquerel, Draper, Archer, Bolton and Sayce, Maddox, Poitevin, Woodbury, etc., with occasional rambles aside to describe the works of less noted discoverers. He wound up with the remark of Jane Welsh Carlyle's, to the effect that "photography has given more positive pleasure to poor suffering humanity than anything that has cast up in my time." The lecture was very fully illustrated by lime-light views, chiefly portraits of the persons mentioned, which were exceedingly interesting. In connection with Talbot's portrait, the lecturer regretted, referring to the monuments which have been erected in France to Daguerre and Niepce, that our own countryman has not yet received that recognition which ought to have been rendered to him long ago, a sentiment which was warmly applauded. "How came it," he asked, "that no commemorative statue has been erected to the memory of the man who shared with the two Frenchmen the honour of having discovered photography?" Another interesting item, for an Edinburgh audience, was a view by Sir John Herschel, of the world-famous monument to Sir Walter Scott which adorns Prince's Street in Edinburgh. The photograph was taken in 1844, when the monument was being erected, and was thus the first photograph of a pile which is now bombarded by cameras nearly every week-day throughout the year. The portrait of Sir John Herschel which was shown was from a negative by Mrs. Cameron. Speaking of colour photography, Mr. Lang expressed the opinion that things seemingly much more impossible had been accomplished. Captain Abney's portrait, with a highly appreciative reference to what he has accomplished for photography, was loudly and deservedly applauded. Altogether the lecture was a success, and if the same standard be kept up throughout the series, local photographers will have reason to thank the council of the Society for the treat afforded them in this dull season of the year. It is almost unnecessary to add that Mr. Lang was cordially thanked for his address.

Subsequent glances round the galleries confirm the impression formed at the Press view that the Society have got together a very fine collection of photographic productions. One of the special features is the collection of ancient photographs, dating back to Mr. Hume's exhibit of Professor Charles' experiment in 1780, which the council have facetiously entered in the catalogue

before No. 1 of the collection, and have described as "At the Dawn." Such productions are, through the lapse of time, getting scarce, and there is therefore a greater interest attaching to them. The exhibition has revealed the fact that there is in and around Edinburgh a great wealth of photographic works, including many that are now looked upon in the photographic world as curios, and as they do not travel freely south of the border, or have not as yet done so, it is to be hoped that efforts will be made, now that they have been as it were discovered, to induce the holders of these works to allow photographers in the southern portion of the kingdom to see and enjoy them.

I learn that the jurors are not likely to start adjudication for some time yet, and therefore it may be necessary, instead of waiting for their decisions, to give some notice of the leading exhibits in the succeeding numbers of the AMATEUR PHOTOGRAPHER.



### THE INNOCENT AT THE PHOTOGRAPHIC EXHIBITION

(AND WHAT HE WANTS TO KNOW, YOU KNOW.)

Are Detective cameras fitted with Spy glasses?

What would be the result of using a Light Model camera for taking dark and Heavy Models with?

Does a "Dark-Slide with Attachment" mean a Midnight elopement?

Would the Clearing solution be effective for clearing away crowds?

How are the patent Crown shutters better than half-crown ones?

Can the Spring Autumn-atic arrangement be used for Summerily taking Winter views?

Do the Plate Lifters realise the risks they run from the police, when they Lift the Plate?

Is the Plate used in the Silver process?

Are the Untouched Silver portraits indicative of the visitors' Resistance to Temptation?

Are studies from the nude taken from Naked-tives?

How many negatives are there in the Positive process?

Would a Portrait that's found to Answer be a Speaking likeness?

Isn't a Speaking Likeness a sort of Figure of Speech?

Are photographs of members of the Ministry necessarily all Cabinet portraits?—*Funny Folks.*



**FLASH-LAMPS.**—A novel arrangement in flash-lamps has just been patented in Germany, in which magnesium powder impregnated with benzine vapour is projected through the flame of an oil lamp, or, of course, through an ordinary gas flame. The advantages which are claimed for the apparatus are more complete combustion of the powder, and consequently greatly increased illuminating power, compactness, simplicity, and safety. We believe that this is the first time that magnesium has been used in this way, and to some inventive readers it may give a hint.

**PYRO STAINS HARD TO REMOVE.**—A writer in *L'Amateur Photographe*, our French contemporary, advises the following solution for removal of pyro stains from the hands:—

Hydrochloric acid	..	..	..	93 grammes
Oxalic acid	..	..	..	2 2 "
Phosphoric acid	..	..	..	2 5 "
Water	..	..	..	500 "

This, however, is powerless to touch eiko or hydro stains. We have always found that dilute sulphuric acid, about 1 to 4, will remove most pyro stains.

**ALPHA PAPER.**—The Britannia Company, Ilford, have very courteously presented us with a frame containing three prints on this paper for the decoration of the editorial sanctum. The subject chosen is a lady holding a piece of music in her hands, and it is well treated, but the great point is that the pictures are respectively toned in three colours, which indicate a wide field for selection. One is a warm sepia, exactly the colour for many landscapes, which are now spoilt by being confined to one colour; another is a warm purple, and the third a fine purplish-black. The tones are all that could be desired, and must recommend themselves to amateurs who are tired of the late monotony in colour to which the ordinary amateur was confined. The paper is easy of manipulation, and good results are almost certain.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BLACKBURN AND DISTRICT PHOT: SOC:—**At the meeting on the 20th inst., Mr. Mitchell showed on the screen some views taken at Blackpool, which were very good. Afterwards he showed experiments with a new magnesium flash-lamp. Negatives were made on Ilford ordinary plates, which developed very well and proved very satisfactory. There was a good attendance. On Monday, December 8th, the Boston slides (lent by the Liverpool Society) will be shown.

**BRAMLEY AND DISTRICT PHOT: SOC:—**The monthly meeting was held on the 4th inst. A paper on "Enlargements" was read by Mr. Goodman, of Pudsey. Enlargements, negatives, prints, and magic-lantern slides were shown by members.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—On the 20th inst. Mr. A. R. Dresser gave a demonstration on "Slide-making," exposing and developing a number of plates from various members' negatives. The printing-in of clouds by vignetting was fully explained and shown, as well as local development and reduction. A copy of his pamphlet on the subject was laid upon the table, together with samples of Wormald's slide masks and binding strips. Next meeting, December 4th, a paper will be read by Mr. E. J. Wall.

**CARDIFF AM: PHOT: SOC:—**The ordinary meeting was held on the 21st inst., Mr. S. W. Allen in the chair. The design for the new dark-room was submitted, approved, and ordered to be put in hand forthwith. The Chairman intimated that the lantern and lamp would be in working order early next week. The fifth annual meeting was then held, and the following officers elected for the ensuing year:—President, Charles F. Gooch; Vice-Presidents, James Watson, J.P., Walter Insola, S. W. Allan, Alex. Kellar, J. Mansel Frankland; Treasurer, W. Foster; Hon. Secs., G. H. Bedford and T. H. Faulks (127, Bute Road); Council, Eb. Lewis, W. H. Kitchin, Wm. Finlay, Jno. Neale, Jno. Weaver, Fred. Hartzman, E. H. Burton, George Shapton, C. C. Perkins, A. McKinnon, C. H. Monnall, G. H. Wills, jun., Wm. Booth. The annual dinner is fixed for Thursday, 11th December, at the Park Hotel. A special general meeting will shortly be called to revise the rules, in order to admit professional photographers to the ranks of the Society.

**DERBY PHOT: SOC:—**The monthly meeting of the above Society was held on the 11th inst., Mr. Richard Keene presiding. Mr. H. M. Smith, of the Eastman Dry Plate and Film Company, gave an instructive lecture on enlarging on their bromide paper, with demonstration, which was greatly appreciated.

**GLASGOW AND WEST OF SCOTLAND AM: PHOT: ASSOC:—**The usual monthly meeting of this association was held on the 17th inst., the President, Mr. Archd. Watson, in the chair. An interesting paper on the "Development of Negatives" was read by Mr. Wm. Goodwin, followed by a discussion. A number of photographic transparencies by Mr. Miller, illustrating a tour in Holland with the hand-camera, were shown on the screen by means of the limelight lantern.

**GREENOCK CAMERA CLUB.**—At the November meeting on the 20th inst., Mr. T. N. Armstrong, of Glasgow, gave a demonstration of the capabilities of his "illuminating chamber" for enlarging and reducing, and the making of transparencies. The illuminator, as shown, consisted of an oblong box, whitewashed inside, and lit by two lime cylinders at the ends. Negatives could be fitted in a central aperture, and non-transparent subjects inside the box. Two whole-plate opals, on Ilford plates, were made by the lecturer from a lantern-size negative, and showed a most satisfactory uniformity of illumination. A drawing was also copied, and a slide made on a Mawson lantern plate, this latter being a reduction from a whole-plate negative.

**HASTINGS AND ST. LEONARDS PHOT: SOC:—**A meeting was held on the 17th inst., at which there was a lantern-slide competition, fourteen sets of four each being contributed by members. The decision, by popular vote, resulted in the Rev. A. M. Macdona again taking first place, and securing the Society's bronze medal. After the competition the Boston slides were shown and described by the Rev. A. B. Cotton, who also supplied the oxy-hydrogen lantern.

**HOLBORN CAMERA CLUB.**—The usual weekly meeting was held on the 21st inst., Mr. F. J. Cobb in the chair. Mr. Herbert Thompson gave a lecture on "Chloride of Silver Emulsion Paper." In the course of his lecture he spoke of the great advantages of this paper over albumenised paper. It was, in his opinion, the best paper for amateurs, excellent prints being obtained whether the negatives were thin or dense. Every little detail which existed in the negative was brought out in the finished print. During the evening prints upon the various commercial brands of paper, some having been sent by the makers, and others from negatives of Mr. Thompson and Mr. Golding, were passed round. Sample pieces of the Celerotype paper were also distributed. To-night (Friday) the American set of slides, "A Ramble in and about Columbus, Ohio."

**LEWISHAM HIGH ROAD CAMERA CLUB.**—At the ordinary meeting held on the 21st inst., Mr. R. W. James gave a demonstration on "Enlargements." He exhibited a number of capital enlargements specially prepared for the demonstration. Dr. Dashwood occupied the chair, and four new members were admitted. The next meeting takes place Dec. 5th, when Mr. Malcolm Stodart will give a demonstration on "Development."

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES' PHOT: ASSOC:—**The ordinary monthly meeting was held on the 18th inst., Mr. J. P. Gibson in the chair, when the subject for the evening was a demonstration of the "Platinotype Process," by Messrs. M. Auty and J. Pike. The Hon. Sec. announced that over £15 had been subscribed by the members towards the purchase of a new optical lantern for the association.

**NORTH KENT AM: PHOT: SOC:—**A meeting of this society was held on the 20th inst., Mr. I. C. Johnson, J.P., President, in the chair. A letter was read from the Right Hon. the Earl of Darnley, thanking the members for photographs received. It was decided to hold a soirée for members and friends shortly.

**NORTH LONDON PHOT: SOC:—**At the meeting on the 18th inst., the Rev. E. Healy in the chair, the lantern was got into requisition, and some excellent slides by several of the members were exhibited.

**NORTHAMPTONSHIRE NAT: HIS: SOC: AND FIELD CLUB (PHOT: SECT:)**—The first meeting of the winter session was held on the 19th inst., when Mr. H. Manfield, the President of the section, gave a talk on "Lantern Slides," illustrated by numerous specimens by various processes, which were passed through the lantern. There was a good attendance, and, after Mr. Manfield's talk, work done by the members during the summer was submitted for inspection.

**SHEFFIELD AND DISTRICT OPTICAL LANTERN SOC:—**The usual monthly meeting of the above Society was held on the 19th inst., under the presidency of Dr. Manton. After the routine business was concluded, Mr. H. Stainforth, the Vice-President, gave a short lecture on the "Manipulation of the Optical Lantern." After describing the manipulation of the oil light, Mr. Stainforth went on to describe the blow-through and mixed jets, using for his experiments a magnificent triple lantern of his own manufacture, fitted with his new patent jet-holder and regulator, which is extremely simple in its action for centring the light, and was much admired by the members. Amongst the slides exhibited during the evening were those of the competitors for a prize offered by the President. The competition was decided by voting, Mr. Woolhouse gaining the prize.

**SOUTH LONDON PHOT: SOC:—**The second annual exhibition was held at Hanover Hall, Rye Lane, S.E., on Friday and Saturday last. The competition was spirited, there being thirty-five entries. The judges were Messrs. J. Traill Taylor, Leon Warnerke, and A. R. Dresser; the exhibits being divided into four classes, viz, class A, for best general work; Class B, for views taken on the Society's excursion; Class C, for local views; class D, for lantern slides. The awards were as follows:—Class A, silver medal, Mr. W. Rice; bronze medal, Mr. T. C. Kirby. Class B, silver medal, Mr. J. F. Kelly; bronze medal, Mr. H. E. Farmer. Class C, bronze medal, Mr. F. W. Webb. Class D: here judges' awards were, first, W. Rice, disqualified by taking medal in Class A; second, H. E. Farmer, disqualified by taking medal in Class B; therefore the bronze medal was awarded to Mr. E. Boydell, his slides being the best of those that remained after taking out Mr. Rice, and Mr. Farmer's. The proceedings were enlivened both evenings by a selection of vocal and instrumental music, and were attended by a large number of persons, so much so that, despite the wretchedly wet night, a large number of persons were unable to obtain admission, the hall being



literally packed as full as it could be; and, both as regards the work sent in, and the attendance of the public, the affair was a great success.

**SPEN VALLEY PHOT. SOC.**—A monthly meeting of this society was held on the 11th inst. Dr. Farrow, the President, occupied the chair, and there was a good attendance of members. The prints sent in by amateurs in connection with the twelfth competition of the *AMATEUR PHOTOGRAPHER* had been secured for the evening, and these were criticised at some length. The President then drew the attention of the meeting to the latest discoveries in the art, making special reference to the use of bichromate of potash as a restrainer in the development of plates, and to the latest methods of printing upon fibrous materials. Subsequently Mr. A. H. Knowles demonstrated the use of the new limelight enlarging apparatus with 10 in. con-

denser, which the society has just purchased, and a 25 in. by 21 in. enlargement was successfully made from a negative of a view in Knaresborough, taken by Mr. E. Hirst.

**TOYNBEE CAMERA CLUB.**—At the meeting on the 20th inst. Mr. Howson, of the Britannia Works Company, gave a demonstration upon "Alpha Paper." Specimens of lantern slides were shown, also a number of prints showing the various surfaces and tones obtainable with Alpha paper. The evening closed with a unanimous vote of thanks to Mr. Howson. The club also takes this opportunity of thanking the Britannia Works Company.

**WOOLWICH AND DISTRICT PHOT. SOC.**—The ordinary meeting of the above society was held on the 20th inst., when an interesting paper on "Toning Baths" was read by Mr. Aspinall. The next meeting will be held on December 4th, when a paper on "Flash Light" will be read by the Secretary.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4370. **Address Wanted.**—Wanted, the address of the Equitable Telephone Company.—**L. W. A.**

4371. **Lenses.**—Will someone give me in order of precedence the names of those they would select as our six representative lens-makers? — **D. H. DENMAN.**

4372. **Intensifier.**—Can anyone give me the formula for Edwards's intensifier, also for Farmer's reducer? — **DONALD.**

4373. **Rivot's Self-Toned Paper.**—Can anyone recommend Rivot's self-toned paper? Is there any power of fully printing and obtaining tones to suit different subjects? — **W. G. G. RADLEY.**

4374. **Bellows of a Camera.**—Can anyone tell me how far the bellows of a camera ought to extend, when using a Ross's R.S. 9 by 7 lens, with the back lens taken out, for use as a long-focus lens? Any information will greatly oblige the ignorant inquirer.—**W. G. G. RADLEY.**

4375. **Printing Process.**—Wanted, a plain-paper printing process, that will give the warm brown tone of Mr. G. Davison's pictures.—**DEVON.**

4376. **Books.**—What is the best book for teaching amateur photography? Also please recommend a camera suitable for one fond of riding, cycling, and walking? — **CYCLIST.**

4377. **English Watering Places.**—I should be vastly obliged to any of your readers who can lend me a print or two (not negatives), of any size whatever, of incidents at English watering places. One print of donkeys on the sands specially needed. I wish them to take sketches from, to illustrate an article in an amateur magazine, and would return prints sent within three days after receipt. With thanks in anticipation.—**ADELAIDE** (address with Editor).

4378. **Carbon Printing.**—Can anyone tell me where I can get some carbon printing done (double transfer) at a moderate price? I find very few lists quote prices for carbon printing.—**BRNKST.**

4379. **Exposure.**—How long an exposure ought I to give for photographing a scene on a stage, lighted up by foot, head, and side lights, using Ilford extra-rapid plates and R.R. lens, stop  $f/16$ ? The scene is on board ship, with light surroundings and back scene.—**ACTOR.**

4350. **Collotype.**—Will someone tell me where I can obtain the necessary apparatus for the above process-printing? — **F. M. GURNI.**

4381. **Lantern Slides.**—Will anyone lend me negatives, quarter-plate preferred, for making lantern slides? Instantaneous subjects wanted most, such as yachting, trains, cycling, shipping, etc. Will pay all expenses, and take great care; also will be pleased to reciprocate with half-plate negatives of land and sea scenes, including Cornwall.—**M. I. M. E.** (address with Editor).

4382. **Lanterns.**—Can any kind reader tell me where I can get parts of lanterns, as I wish to make my own, and do not know where to obtain the parts required.—**C. WILLARD.**

## QUERIES UNANSWERED.

Oct. 3rd.—No. 4217.

17th.—Nos. 4239, 4350, 4260, 4261.

24th.—Nos. 4268, 4270, 4275.

31st.—No. 4297.

Nov. 7th.—Nos. 4310, 4312, 4314.

14th.—Nos. 4330, 4332, 4334, 4337.

21st.—Nos. 4343, 4345, 4354, 4357, 4361, 4362,

4363, 4364, 4367, 4368, 4369.

## ANSWERS.

4218. **Pyro Formula.**—Can certainly recommend Berkeley's sulpho-pyrogallol from personal experience, to be obtained from the Platinotype Company. I use ammonia as accelerator.—**A. MCK.**

4346. **Swinden and Earp's Hand-Camera.**—Have used the above camera for the whole of this season, with most satisfactory results, both shutter and time exposures. Is very portable, and has every arrangement for really first-class work. Works with plates, and carries, when full, twenty plates, but any less number can be put in. No slides needed, and changing apparatus works without a hitch. Focussing arrangements very simple, and set rapidly. Fitted with Kershaw's shutter and Laverne's R.R. lens. It has been my constant companion all the summer, and can thoroughly recommend it as reliable and worth the money.—**DOUGLAS.**

4347. **Camera and Lens.**—"Beginner" can easily use half-plates in a whole-plate camera; but if he works with a whole-plate lens, the angle of view will be reduced. Naturally, however, the half-plate camera is more suitable for half-plate work. He ought, therefore, to decide which plate he will generally use. Portability and economy are in favour of the half-plate, but the effect of a whole-plate is better; and I think, as a general rule, the larger a photograph the more satisfactory it is. If "Beginner" does not mind the cost, he will, probably, chiefly use whole-plates, and then he will find the carriers answer perfectly, especially as he will not use half-plates for wide-angle work. If, on the other hand, he is going to use half-plates principally, he had better buy a half-plate camera, with the front moving for focussing, and add to his camera an adapter for whole or 10 by 8 plates for occasional use. Messrs. Shew and Co., 88, Newman Street, Oxford Street, London, make these, the whole-plate and one double slide costing 35s. Whatever camera he buys, the first lens to get is one of the rapid rectilinear type. If he is using a half-plate one, the front lens can be removed, and the back lens will then cover a whole-plate, and probably a 10 by 8.—**J. G. P. VERREKER.**

4347. **Camera and Lens.**—Of course, by using a carrier in your whole-plate slide you will be able to take half-plate pictures, just the same as so many work quarter-plates with a half-plate camera. To get smaller pictures than a whole-plate with a whole-plate camera, you will naturally have to get farther back with your camera than you otherwise would. This is only a disadvantage when taking interiors, and this can be rectified by having a wide-angle lens. As to the latter part of your query, I must refer you to answers to No. 4319 in last week's paper.—**W. A. J. CROKE.**

4348. **Fastest Plates.**—For this time of the year, Edwards' Isochromatic instantaneous plates, sensitizer No. 25.—**WILLIE.**

4348. **Fastest Plates.**—The Mawson Stellar plate, made by Mawson and Swan, 33, Soho Square, London, W., is the fastest plate ever made. Working with R.R. lens at  $f/5.5$ , I have exposed them for  $\frac{1}{1000}$  sec. on a horse race, with a good result.—**HOBAN.**

4348. **Fastest Plates.**—See answers to 4340 in last issue. I do not think you can possibly want anything faster than the ones mentioned.—**W. A. J. CROKE.**

4349. **Exhibition Patent Set.**—This is as good a set as you can buy at the price.—**WILLIE.**

4350. **Snow Scene.**—You do not say at what time of year, day, light, you took the waterfall. Give these, and I may help you.—**WILLIE.**

4351. **Pneumatic.**—This can be obtained (pneumatic ball and tube) from Platt's, Birkbeck Works, Birkbeck Road, Dalston, N.E. He is the amateur's friend. Query 4368: Can be obtained from same. Best for "Alpine" to call and see.—**D. WITTIE.**

4351. **Pneumatic.**—Write to M-rion and Co., Soho Square, London. They are agents for the above.—**WILLIE.**

4351. **Pneumatic.**—Any maker will supply you with what you want. Why not write direct to the Thornton-Pickard Manufacturing Company, St. Mary's Street, Deansgate, Manchester?—**W. A. J. CROKE.**

4352. **Rangoon.**—Write to the Ilford Plate Company. They will give you information and addresses.—**WILLIE.**

4355. **Glossy Surface.**—Of course you cannot get a good surface on bromide prints, the gelatine naturally sticks to the glass; they are not intended to be glossy. Using ordinary paper you should have no difficulty, if you squeegee carefully.—**W. A. J. CROKE.**

4355. **Glossy Surface.**—Your trouble is caused by imperfect squeegeeing. After squeegeeing your print on the glass, turn it over, and if you notice any spots, squeegee them out.—**WILLIE.**

4358. **Chloroplatinite of Potassium.**—Mawson and Swan, Soho Square, London, W., are makers of chloroplatinite potassium, as mentioned in Mr. L. Clark's book. You can get 60-gr. tube for 7s. 6d.—**HOBAN.**

4359. **Retouching.**—J. Hubert's "Retouching Made Easy" would suit you, post free 1s., from any dealer.—**WILLIE.**

4365. **Stains.**—Nothing will, I am afraid, remove the finger marks. You had better print fresh ones, instead of trying to doctor these up.—**W. A. J. CROKE.**

4366. **Blisters.**—Yes, hard water is not good for toning, if you can avoid it. I expect you get your toning bath too hot. Perhaps you use your fixing solution too strong; 2 oz. of hypo to the pint is quite strong enough.—**W. A. J. CROKE.**

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us **BEFORE TUESDAY MORNING'S POST** if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—**ED: AM: PHOT.**

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

**W. RUSSELL JOHNSTONE.**—Thank you very much for the good wishes.

**D. E. GODDARD.**—Glad of the particulars, but do not care to comment upon the matter.

**ALFRED CAVARA.**—We have sent the report on lens to the firm named in your letter; they have doubtless sent it to you.

**D. F. W. HANNA.**—Many thanks for the "notes." We are always pleased to have them.



WILLIAM LEE.—The business is rightly described by you.

FRANK HOWARD.—Many thanks for letter. We see no reason why the photographic worker should ever come down to the level of the class named.

F. R. TESTER.—In the following order—4, 3, 5, 2, 1. H. E. GRANTHAM.—We have tried the paper named, and cannot find the faults you do. Our samples have shown but little tendency to curl. Neither the borax nor plain acetate bath would give a rich purple, the makers recommending the tungstate for this purpose. You do not state whether the prints were well washed prior to toning. All chloride emulsion papers should be very deeply printed, well washed to free them from acid, and then a sulphocyanide bath used for toning. We have just finished three dozen whole-plate prints without a single failure.

W. CARTMELL.—No.

F. CARTIN.—Either apply retouching medium to the film, and use a pencil to obliterate the scratches and pinholes, or varnish your negative, and then use carmine lake and sepia mixed with gum water to spot out.

T. W. S.—The markings are due to the developer "crawling," and thus some parts of the negative are denser than others. Make sure your developer is well mixed before applying to the plate; see that it covers it all over, and keep it in motion. Fix immediately after developing. For the bromide paper, see that both solutions are acid, use plenty of clearing solution, and use this fresh; wash well before fixing. The printing-out platinum paper is not difficult, and well worth a trial.

CHAS. C. MACKLEY.—1, 2, 3, and 7 are equal; then 4, 8, 6, 5. If you will let us know exactly the particular class of instrument you require, and re-name 1, 2, 3 and 7, we will advise you more particularly.

H. E. BUTLER.—B, D, C, A. Try—

Acetate of soda ...	30 gr.
Carbonate of soda ...	15 "
Salt ...	5 "
Chloride of gold... ..	1 "
Water ...	5 oz.

Keep 12 hours before using.

H. MANNING.—Try No. 2, then 4.

H. T.—The whole subject is now being exhaustively treated by Mr. Valentine Blanchard, in his articles on "The Stereoscope," the first of which appeared in No. 291, May 2nd, 1890. You will do well to refer to these.

J. KIRKPATRICK.—4, 5, 6, 1, 2, 3.

G. H. K.—The following order, 1, 3, 5, 6, 7, and the other make last.

J. T. G.—Any of the lenses you name will answer your purpose, they are all by first-class makers. Rates in the following order, 6, 7, 3, 4, 9, 8, 10, 1, 2. J. P. H. (Barbadoes).—We should recommend the shutter No. 5 on your list. It is very interesting to find that you have derived so much benefit since you subscribed to the AMATEUR PHOTOGRAPHER. Shall be pleased to criticise your work at any time.

D. G. URQUHART.—(1) We should advise *a*. (2) Yes. (3) We know the *a* works at *f*/11, but we do not know that the *b* works at *f*/9. (4) Have not tested the shutter. (5) Have had no opportunity of testing either camera "on a fairly bright winter day." With *a* you can give a time exposure, so should have no difficulty. (6) *a* has a good and quick shutter; we know nothing about the shutter on *b*. Finally, if you want a cheap and useful hand-camera buy *a*.

A. GEDDES.—Will get the negative back if possible. Were sorry not to see you. Can get no satisfactory explanation as to the fault.

B. JUMEAUX.—Thank you, will try it very shortly and report.

ALEX JAMIESON.—We can with confidence recommend the first lens named. Know nothing of the second.

F. J. H.—From your letter, which we do not feel justified in publishing, we should think that the faults on the plates are very likely your own.

G. S. BIGLAND.—We cannot find the prints referred to.

F. W. WATTS.—Really we should not be able to spare time to pick out the slides, even if we have those you require in our collections. If any letters come for you they will be forwarded.

W. GLADSTONE.—The fact of the slide being accidentally cracked will not militate against your chance of a prize.

W. P. BIRDEN (Hyeres).—Thank you very much. We make the announcement in another column.

T. H. BENSON.—In the following order:—A, C, B, E, D, F.

ST. J.—The film answers in our hands, and in the hands of so many of our readers; we fear your manipulation must be at fault. The camera is costly, but a very admirable instrument.

BORDERER.—Read the maker's remarks last week.

T. B.—We do not insert your query, as we are sure that it will meet with no response, and cannot allow the query columns to be made use of for advertising purposes.

SALOPIN.—Instead of testing your sensitising bath as suggested, make a stock solution of nitrate of silver, 100 gr. to the oz. of water, and after float-

ing each whole sheet of albumenised paper, add 2 drms. of this stock solution to your bath. Always keep your bath alkaline by adding a few drops of solution of carbonate of soda, till a slight permanent precipitate is formed.

R. WEBB.—A: The only fault is want of detail in the shadows, which is due to the negative. B: Not received. C: The whole of the grass in foreground wants covering on back of the negative with yellow matt varnish, so as to prevent it from printing so deep. D: There is too much staring into the lens, the three figures in a line are hardly artistically posed. E: Good, slightly too deeply printed. F: Good print from a flat negative; a shade only lighter would have improved. All the prints are good platinotypes, though you print slightly too dark. Plates in order as you name them—1, 2, 3. Use the developer recommended for 1. No, the method you propose and used for F tends to give flat negatives.

AMICUS.—Few can show such a good result from the third negative. You had not got your camera upright, hence the distortion, or convergence of the window lines. The plate is slightly under-exposed. You would have done better to draw the curtains right back at the top. Let us see some more work in three months time.

A. E. EDWARDS.—Mr. Wall has abandoned the use of formic acid, because of its great staining power. As a preservative it cannot be beaten. It certainly has no effect on the keeping quality of the negative.

F. S. LREDHAM.—(1) A trifle longer exposure would have improved this. (2) Extremely flat and uninteresting; cut off at least an inch of the foreground; you have one or two dirty spots in print. (3) More spots—did you ever see a black sun? There has been no total eclipse this year visible in England. Paint the sun out with black varnish. The post and wires might have been omitted with advantage. (4) What is the peculiar gridiron in the sky? We fancy you did not clean the back of your plate. (5) Better; a little darker printing would improve it still further. (6) Good, but print too light. (7) The best of the lot—though looking up the glen more is a better standpoint, so as to cut out the trunk on extreme left.

ELGIN.—(1) The shutter is as good as any we know. (2) Keep the window shut. Ground-glass merely means loss of light. Best time: between 11 and 2. The brighter the light the shorter the exposure; this is the only difference. Use a sheet of opal glass or white cardboard fixed to bottom of window at an angle of 45 degs. When the eye is placed at the position of lens, nothing but the reflector should be seen through the hole in window. Stop your lens down if necessary to obtain sharp marginal definition. Exposure may vary from 10 to 60 sec. according to light and density of negative—expose a trial slip of paper on the half tones of negative. Under the conditions named you ought to get first-class results. See Wall's "Dictionary of Photography," for full information on "Enlarging;" all your questions are there answered.

PROTIQUE.—(1) The negative is over-exposed and under-developed. About two drops only of accelerator should have been added at first, and more if required, or the bromide should have been increased. (2) You are giving too long exposures; reduce by half, and try again. (3) Place your engraving under a sheet of plate glass, preferably in a printing frame. Keep absolutely flat, then focus so as to take in only the engraving on to focussing screen marked for lantern size. If you will send particulars of focal length of lens, and accurate measurement of engraving, we will tell you distances to place camera, etc.

## "Amateur Photographer" Lantern Slide Competition.

### NAMES OF COMPETITORS.

#### Class I. (35 entries).

#### LANDSCAPE, RIVER SCENES, AND SEASCAPES.

1. Ellam, J. E. ...	Yarm
2. Corder, A. H. C. ...	Brighton
3. Davis, Rev. C. G. ...	Darlington
4. Scott, W. H. ...	Bradford
5. Hammond, H. H. ...	Southsea
6. Smerdon Roe, O. ...	Cambridge
7. Bridger, H. L. ...	Hampton
8. Craven, Fred. ...	Ravensthorpe
9. Day, Horace ...	Tunbridge
10. Macfie, A. F. ...	St. Andrews
11. Chaffey, W. O. ...	Blackheath
12. Arnold, J. O. ...	Sheffield
13. Pitkethly, Alex. ...	Leith

14. Bingley, Godfrey ...	Leeds
15. Macleod, Rev. R. C. ...	Haywards Heath
16. Bucknall, A. T. ...	Kidderminster
17. Dresser, A. R. ...	Bexley
18. Shadbolt, Cecil V. ...	Chislehurst
19. Gladstone, Wm. ...	B'ness, N.B.
20. Lane, Arthur E. ...	Surbiton
21. Davidson, B. ...	Brockley
22. Bridger, H. K. ...	London
23. Davenport, J. ...	Manchester
24. Leeson, A. J. ...	Birmingham
25. Pollard, W. ...	Liverpool
26. Potter, J. G. ...	Brighton
27. Kitchin, W. H. ...	Cardiff
28. Dargue, J. S. ...	Halton
29. Lee, R. G. ...	Cullercoats
30. Bywaters, Lewis J. ...	London
31. Hughes, G. D. ...	Rock Ferry
32. Bailey, W. H. ...	Cookham
33. Foster, Philip S. ...	Halifax
34. Webber, S. J. ...	Westcomb's Park
35. Bury, J. Os well ...	Wrexham

#### Class II. (9 entries).

#### FIGURE STUDIES AND GENRE PICTURES.

36. Sanderson, F. H. ...	Cambridge
37. Cornell, Alfred ...	Tonbridge
38. Gratschieff, W. W. ...	St. Petersburg
39. Clarke, S. Francis ...	Leuth
40. Oliver, J. C. ...	Glasgow
41. Buck, Thos. L. ...	Ravenstonedale
42. Harding, Martin J. ...	Shrewsbury
43. Lysaght, Major J. D. ...	Cork
44. Austin, John E. ...	Maldstone

#### Class III. (10 entries).

#### ANIMALS AND INSTANTANEOUS PICTURES.

45. Everhed, A. R. F. ...	Hampstead
46. Moonen, Leo ...	Hampstead
47. Macadam, David ...	Haltwhistle
48. Bedford, E. J. ...	Lewes
49. Jumeaux, Dr. B. ...	Morecambe
50. Shirley, W. H. ...	Dukinfield
51. Reynolds, K. L. ...	West Worthing
52. Faulks, T. H. ...	Cardiff
53. Guthrie, Alex. ...	Leith
54. Tattersall, H. P. ...	Blackburn

#### Class IV. (14 entries).

#### ARCHITECTURE, EXTERIOR OR INTERIOR.

55. Williams, Miss E. M. ...	Edling
56. McEwen, Wm. ...	Penge
57. Bek, Ernest ...	Sheffield
58. Perkins, Rev. T. ...	Shaftesbury
59. Atkins, Dr. Ringrose ...	Waterford
60. Webbing, Alfred H. ...	Brighton
61. Stabb, John ...	Baywater
62. Cobb, Cyril S. ...	Surbiton
63. Sinclair, J. A. ...	Liverpool
64. Smith, G. W. ...	Bromley
65. Wade, J. W. ...	Manchester
66. Hanna, Francis B. ...	Wicklow
67. Watson, Arch. ...	Glasgow
68. Everington, W. A. ...	Norwood

NOTE.—We have one box of slides with no entry form. The titles on the slides are:—Winter—Frog's Home—Okary Bridge—Off to the Fishing Ground—Valley of the Dart—Cattle at Stream—A Devonshire Lane—Mouth of the Dart—Yacht Towing Out, and Steamboats in Harbour. Will the sender kindly forward entry form?—ED: AM: PHOT:

## Sale and Exchange.

RULES.—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

REPORTING UPON APPARATUS.—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to



report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the SELLER to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send report a within TWO DAYS of receipt of goods.

## DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer," vols. i. to xi., or separate; offers.—Collins, Chalfont, Bucks.

"Amateur Photographer," etc.—AMATEUR PHOTOGRAPHERS, from September, 1888, up to date; "Almanacs" and "Year Books" from 1859.—John Wilson, Altmore Street, G'nam, Belfast.

Cameras, etc.—Watson's half-plate Tourist camera, swing-back, three double backs, carriers, view-finder, and focussing glass, a 1 in perfect condition, price £4 10s.; also Dallmeyer's 1AA W.A. lens, rotating stops, and adapter, as new, price £4.—Harrison, Langley Park House, Sutton, Surrey.

Cameras, Lenses, etc.—Lancaster's 1890 half-plate Instantograph camera, dark-slide, with tripod, rapid rectilinear f/8 lens, new; list 105s.; bargain, 67s. 6d.—14, George Street, Stroud, Glos.

Ashford's 10 by 8 camera and stand, in solid leather cases, three slides, Eastman's roll-holder, carriers, etc., Place's shutter, Ross' 10 by 3 rapid symmetrical, all nearly new; may be seen by appointment; cost £35; price £18 10s.—No. 86, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, Ludgate Hill, E.C.

Lancaster's old-pattern half-plate Instantograph lens, shutter, tripod, three slides, and bag, complete; 60s.—Chave, Hereford.

Lancaster's cabinet portrait lens, Guerry's single flap shutter, cabinet size, Lancaster's new Universal half-plate square camera, bellows body, rack adjustment, double swing, double-hinged focussing screen, double dark-slide, whole-plate two-fold stand, Rubralux lamp, all new and perfect; the lot £26 5s., or will sell separate; exchange for whole International.—J. Greenhill, 41, Bourne Street, Eastbourne.

Underwood's patent quarter photographic set, complete, £3 10s.; Whiteley's 5 by 5 Universal camera, portrait lens, and stand, £3 10s.; or exchange large apparatus.—7, Dereham Road, Norwich.

Underwood's quarter-plate Instanto camera, dark-slide, tripod, and instantaneous lens, as new; bargain, 31s.—J. Slade, Slad Road, Stroud, Glos.

Rouch's half-plate Tourist camera, five double backs, £4; Burr's 7½ by 4½ R.R. lens, 38s.; half-plate Eastman's roll-holder, old pattern, 30s.—Collins, Chalfont, Bucks.

Conjuring Tricks, large quantity for sale, bargains.—Address, Magic, care of Mr. Ward, 34, Thornhill Road, Barnsbury, London, N.

Hand - Cameras, etc.—Optimus hand-camera, fitted with Taylor's 5 in. detective lens, and six dark-slides, Thornton-Pickard shutter, etc.; cost £9; lowest price £5 10s.—Nicholson, East Tower Street, Carlisle.

For sale, Beck's detective camera, six double slides; cost £13; price £6.—Rev. Dr. West, Ascham House Bourne-mouth.

Lenses.—Dallmeyer's 1B portrait, also makes excellent enlarging or lantern lens, 6 in. focus, first-class condition; 70s.; or exchange half-plate Eury-scope—W., The Studio, Hanwell.

Dallmeyer's 2A patent portrait lens, good as new, £12 10s.; Ross' 8 by 4½ wide-angle actinic doublet, £4.—Field, 81, Ossulston Street, N.W.

Optimus 8 by 5 R.R. lens, 7 by 5 portable symmetrical, 40s.; 5 by 4 ditto, 30s.; Dallmeyer's 2B patent portrait lens, £7; 1B ditto, £2 10s.; all in good condition.—Collins, Chalfont, Bucks.

For sale, splendid c.d.v. portrait lens; price 30s.; or will exchange for good half-plate cabinet burner.—Jameson, 2, Don View, Mexbro', Rotherham.

Lenses, etc.—Half-plate R.R. lens, Iris diaphragm, with Tylar's window shutter to fit, 35s.; half-plate portrait lens, with rack and pinion, 30s.—No. 85, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Must be sold at once, 5 by 4 rapid rectilinear (by Wrench), cost 27s. a few weeks ago, price 20s.; Vever's quarter rectilinear, 14s.; half-plate view lens, re-

volving stops, 7s. 6d.—T. Hall, Pinfold Lane, Lancaster.

Model Locomotive, etc.—Handsome slide-valve model locomotive and circular railway, complete, perfect order and condition, cost £5 10s., price £2 15s.; also pair telephones, 7s. 6d.—Box 1, Mal-low.

Negatives, etc.—22 whole-plate negatives, views of the Holy Land; half-plate burnisher, nearly new; particulars.—W. Jones, Enfield House, Uffculme, Devon.

Roll-Holder, etc.—Exchange roll-holder, changing tent, Newman's shutter, Shew's detective case, and sundries, for landscape negatives, cash, or photographic apparatus.—Pratt, 27, Regent Street, Nottingham.

Shutter, etc.—Newman's half-plate time shutter, 15s.; Stirn's detective camera, 15s.; washer (automatic), to wash 50 each half and quarter plates, 10s.; Decoudon's photometer, 5s.; Stanley's actinometer and Ackland's exposure scale, 5s.; all in perfect condition; cost 94s. 6d.; will take 45s. lot, or exchange 70s. worth lantern slides (lever and coloured preferred).—Barton, Morriston, Elgin.

## WANTED.

Camera.—Lancaster's Multum-in-Parvo 15 by 12 camera.—No. 84, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Cameras, Lenses, etc.—10 by 8 camera and lens, reversing back, three double slides, and tripod stand; must be cheap.—Mrs. Osguthorpe, Studio, New Road, Scarborough.

Half-plate camera, with two or three double backs, tripod, and R.R. lens, by good maker; cash on approval.—Roberts, 23, Harrington Road, South Norwood, S.E.

Condenser.—An 8 in. compound condenser.—Walter Nash, Constitutional Club, London.

Lens.—Half W.A.R. lens; send maker's name, price, and focus.—Biden, 11, Leadenhall Street, London.

Negatives.—Negatives of Scotland and abroad, purchase or hire.—J. McLellan, 36, St. Paul's Road, London, N.

Ruby Lamp.—Lancaster's Rubralux preferred; state lowest price for cash.—Lewis, 10, Granville Road, Wimbledon.

Set.—Whole-plate set, with or without lens.—Price, 94, Marne Street, Queen's Park, W.

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## NOTICES TO SUBSCRIBERS.

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POSTAL UNION .....	6s. 6d.....	13s. 6d.
INDIA, CHINA, ETC. ....	7s. 9d.....	15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## SPECIAL COMPETITION,

ILLUSTRATING THE

## "SEVEN AGES OF MAN,"

As described in Shakespeare's Play "AS YOU LIKE IT" (Act II. Scene VII.)

FIRST PRIZE ..	GOLD MEDAL.
SECOND " ..	SILVER MEDAL.
THIRD " ..	BRONZE MEDAL.
FOURTH " ..	CERTIFICATE.

**CONDITIONS:**—That the Photographs shall be from life, in the costumes and with the surroundings of ordinary daily life. Photographs in which the subjects have been "got up" will be rejected.

The prints may be by any process. The prize photographs will become the property of the Proprietors of the AMATEUR PHOTOGRAPHER, who will have the right to call for the use of the negatives.

All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play, neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man,"

EDITOR:—AMATEUR PHOTOGRAPHER,

1, Creed Lane, London, E.C.



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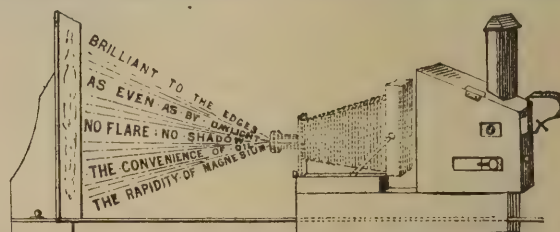
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# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645  
Telegraphic Address: VINEY, LONDON

Offices: 1, Greed Lane, Ludgate Hill, London, E.C.

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FRIDAY, DECEMBER 5, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

To hold as 'twere the mirror up to nature."—Shakespeare.

This has been a busy week in the editorial office. On Friday the 690 slides contributed to the AMATEUR PHOTOGRAPHER Lantern Slide Competition were judged, and the following is the list of awards:—

### CLASS I.

#### LANDSCAPE, RIVER SCENES, AND SEASCAPES.

- First Prize (Gold Medal).*  
Godfrey Bingley .. .. . Headingley, Leeds.  
*Second Prize (Silver Medal).*  
Rev. C. Gibson Davis .. .. . Darlington.  
*Third Prize (Bronze Medal).*  
Philip S. Foster .. .. . Halifax.  
*Fourth Prize (Certificate).*  
William Gladstone .. .. . Bo'ness, N.B.

### CLASS II.

#### FIGURE STUDIES, GENRE PICTURES.

- First Prize (Gold Medal).*  
John E. Austin .. .. . Maidstone.  
*Second Prize (Silver Medal).*  
W. M. Gratschiff .. .. . St. Petersburg.  
*Third Prize (Bronze Medal).*  
Major J. D. Lysaght .. .. . Queenstown.  
*Fourth Prize (Certificate).*  
S. Francis Clarke .. .. . Louth.

### CLASS III.

#### ANIMALS AND INSTANTANEOUS.

- First Prize (Gold Medal).*  
B. Jumeaux .. .. . Morecambe.  
*Second Prize (Silver Medal).*  
William H. Shirley .. .. . Dukinfield.  
*Third Prize (Bronze Medal).*  
Edward J. Bedford .. .. . Lewes.  
*Fourth Prize (Certificate).*  
A. D. Dixon .. .. . Leith.

### CLASS IV.

#### ARCHITECTURE, EXTERIOR OR INTERIOR.

- First Prize (Gold Medal).*  
John W. Wade .. .. . Manchester.  
*Second Prize (Silver Medal).*  
Ernest Beck .. .. . Sheffield.  
*Third Prize (Bronze Medal).*  
J. A. Sinclair .. .. . Liverpool.  
*Fourth Prize (Certificate).*  
Arch. Watson .. .. . Glasgow.

We, the undersigned, hereby declare that we have examined the slides contributed to the competition, and the above is our award.

28th November, 1890.

W. ENGLAND.  
J. FORTUNE NOTT.  
CHAS. HUSSEY.  
J. GALE.

We are deeply indebted to Messrs. Hussey, Nott, England, and Gale for their attention and attendance whilst judging the slides. It is no light task to examine close upon 700 slides, almost all of which were passed through the lantern, and in cases where the marks tied two and three times over. Were it not for the kindness of prominent workers in photography, we should have to give up competitions. With the exception of an adjournment for lunch, these gentlemen were at work for eight hours. Therefore, not only are our thanks due to them, but also the thanks of all our competitors. As to the general quality of the slides, the letter from Mr. Hussey, published in another column, is a sufficient testimony, and one which we much appreciate. In the AMATEUR PHOTOGRAPHER Competition no competitor could send in more than *one* set, and was only allowed to enter in *one* class. We know that a prominent worker in lantern slides, who recently sent ninety slides to a competition, entered fifteen sets in no less than *fifteen* classes, and for his trouble received two certificates and a first prize. We want quality of work, not quantity, except when applied to number of competitors.

WE hope many thousands of workers in photography will during the next few months have an opportunity of inspecting the AMATEUR PHOTOGRAPHER 1890 Prize Slides. We still continue to receive applications for the loan of them, but every available date is fixed up to the middle of April. Some few who applied for the slides may not be able to show them on the date upon which they have been allotted to them, consequently it is possible that there may be a few dates to spare; these will be filled up in order of the applications received. The first public show will be before the members of the West Kent Amateur Photographic Society and their friends, on Wednesday evening the 10th inst., and the second will be at a "special evening" arranged by the Croydon Camera Club on Thursday the 11th. Upon both occasions Mr. Charles W. Hastings will act as demonstrator.

WE shall hold Monthly Lantern Slide Competitions for Silver and Bronze medals, commencing in January, last day for entry the last day in each month; full particulars will be advertised, and entry forms ready, we hope, by the 17th inst. Past prize winners in our annual Lantern Slide Competitions will not be eligible to enter, and no prize winner in the Monthly Competition will be allowed to enter a second competition for a prize of the same value as the one awarded to him. This will not prevent the winner of a



bronze medal competing for the silver medal. The monthly slides will be projected on to the screen in our office upon dates which will be advertised, and competitors will be at liberty to inspect them. If interest is taken in these shows, arrangements will be made to set aside one evening a month, say in the months of February, March, April, May, September, October, November, and December to exhibit the competition slides to the public, a small charge being made to cover expenses. The slides after being shown in London will be made up into sets and loaned to provincial societies at a nominal charge.

THE number of competitors in our Stereoscopic Slide Competition is exceedingly gratifying. Last year we find there were in all—

14 competitors who sent in 4 slides =	56
1 " " " " 6 " =	6
3 " " " " 8 " =	24

A total of 86 slides. This year we have 28 competitors who have sent in 10 slides each, 280 in all, and for the special entry for members of the Dewsbury Amateur Photographic Society, 7 competitors, 5 slides each = 35. We are, indeed, delighted with the result. We know the conditions were stringent, and that it is quite possible that some workers abstained from competing owing to the difficulty of finding ten slides fit for competition. We hope to prevail upon Mr. W. England to help Mr. Valentine Blanchard (both veteran workers with the stereoscopic camera) in the judging, which will be done if present arrangements permit, on Friday, the 12th inst., the awards being published in our issue of the 19th.

It has been quite impossible for us to publish this week the list of photographs received for Monthly Competition No. 19, "Seascape and River Scenery." They are of exceptional excellence, and number between 160 and 170.

THE exhibition at Tunbridge Wells was certainly a success. We comment upon some of the photographs in another column, but cannot help congratulating the society upon their patron, Sir David Salomons, Bart., who encourages them so liberally by his annual medal, and who this year helped the exhibition very much, first as a judge, secondly in opening the exhibition, and thirdly in giving an exhibition of lantern slides by the aid of his magnificent triple lantern, we suppose one of the finest lanterns ever built by that prince of makers, Mr. J. H. Stewart. The association has another good friend in their President, Mr. F. G. Smart, who is an enthusiastic student in photography. He has this year a very fine show of pictures, and for their excellence has been awarded, in addition to the association medals, Sir David's medal, the highest honour the association has to offer. Mr. Joseph Chamberlain, the untiring Hon. Secretary, took the AMATEUR PHOTOGRAPHER Silver, and Mr. Daniel Howard the Bronze Medal. The *Photographic Reporter* medals made their debut at Tunbridge Wells, and were awarded in the "Professional" Class, Silver to Mr. Percy S. Lankester, and the Bronze to Mr. Clarence James.

WE have before us No. 4 of a beautifully got up monthly journal, *The Chase*, published at 2s. 6d., by *Sport and Art*, 58, Pall Mall, S.W. Upon its general character we can only say that it outbids any journal we know of for excellent matter, paper, and print. The number is specially sent to us with a note from the publisher, in which he says, "It contains two specimens of colour photography, which, I believe to be the first which have travelled outside the

sphere of curiosities." The pictures are chromo-collotypes upon exactly identical lines as the one published in the *Photographic Quarterly* for July last, to illustrate the article upon "Photography in Natural Colours," by Mr. F. Bligh Bond. One of the pictures, "Our New Master, Front Rank," is from a spirited sketch in colours by Mr. Arthur Kennard, "reproduced by means of a process of coloured photography which has been worked out by Mr. Teasdale-Buckell,"—so says the indorsement. The printing in of the blue has been a little heavy, otherwise the effect is admirable. The second is a reproduction of the interior of a conservatory, photographed by Mr. Teasdale-Buckell. The colours are in good value, but the photograph is not a happy one, being out of focus and under-exposed. The point of view could have been much improved, and a picture made had an R.S. or R.R. lens been used, stopped down to, say, *f*/32, and a long exposure given. In this case sharp focussing would have made the picture; diffusion of focus has spoilt it. Still, it is highly gratifying to us to note the article in the *Quarterly*, and the accompanying illustration has brought forward chromo-collotype work, and we have no doubt these pictures in *The Chase* will prompt others to use it as a means of colour illustration. They are the work of Messrs. Waterlow and Sons, Limited.

THE suggestion we made about a collection, when showing AMATEUR PHOTOGRAPHER lantern slides, has been acted upon. Mr. L. M. Biden, who is doing a good work in the East-End of London by giving lantern shows; he collected 5s. for the "Daguerre Tomb" fund, from a poor audience on a wretchedly bad night. Perhaps some of the rich societies will help us?

WE note that Mr. Gambier Bolton, F.I.S., has been honoured by an invitation to attend the Court at Windsor Castle. Her Majesty the Queen and H.R.H. Princess Beatrice inspected Mr. Bolton's series of animal and bird studies. We understand that Her Majesty was graciously pleased to accept seven studies in bromide of the lion cub lately presented to Her Majesty by the Sultan of Sokoto. H.R.H. the Duke of Clarence and Avondale has also accepted copies of Mr. Bolton's photographs of Indian lion cub and pair of tiger cubs, which are now in the Zoological Gardens.

WE describe very fully in another column the "Necktie Camera," the most perfect, undetectable detective camera yet invented. It may be seen at Mr. Walter Lawley's, 78, Farringdon Road, E.C.

THE sudden onset of wintry weather suggests the possibility of obtaining snow and frost pictures, and as many of our readers will be attempting such work, a few hints may not be useless. First of all we may fairly divide winter pictures into two classes: (1) frost pictures, (2) snow landscapes or snowscapes. Some of the finest pictures of the first class are to be obtained by photographing the ice feathers on a window, and these, perhaps, are only to be eclipsed in beauty by hoar frost on plants, hedges, etc., isolated bits, here and there an exquisite specimen of ramification picked out by the delicate needles of the frost, or a dead fern frond or cluster of persistent late leaves, the delicate tracery of which is intensified by the same agent. To the student of nature there is no field which offers such entertaining, if cold, work as the study of frost and snow crystals, and one certainly begins to wonder whether many of the old decorators did not obtain their first ideas of arabesques, and simple form decoration from the pencil of nature wielded by



Jack Frost. For photographing frost on window panes, it is only necessary to affix outside the window, at an angle of 45 deg., a sheet of cardboard covered with black cloth, or preferably, black velvet. The camera is then set up, and the frost crystals focussed the desired size; the exposure should not be too long, and the plate should be a slow colour-sensitive brand. Notes on the development we shall continue, perhaps, next week.

For outdoor work where the pictures belong to the first class, we again strongly recommend the use of colour-sensitive-plates, but of a more rapid variety, and the exposure may and should err on the side of over rather than under exposure. For general snowscapes we have always used colour-sensitive plates, and always have backed them and gone in for full exposures. In such scenes, as a rule, to make an effective picture you must include in the foreground some tree trunks or other dark mass, so as to relieve the intense whiteness, and, moreover, break up your foreground either by trampling on the snow or choosing the point of view so that you get some dead branch or plants standing up. When there is bright sunshine, make some shadows fall across the foreground, anything to break up the monotony of the white; and the exposures for such scenes should be long, not only to overcome the extreme contrast, but also to obtain detail in the dark masses of trees and foliage. It is a curious fact, which, however, has nothing to do with photography, that the holly is the only evergreen, or at least the only one we know of, on the leaves of which snow will not rest. The best time to take snow scenes is undoubtedly when the snow has freshly fallen, or when it has been blown by the wind into fantastic wraiths and forms. When the snow has lain some little time, especially if there has been a slight rise in the temperature, which is often the case after a fall of snow, the surface snow gets melted, and loses that exquisite feathery detail which tends so much to relieve the monotony of the white, and gives rise to little shadows and half tones of extreme beauty. We have recommended the use of colour-sensitive plates, and for certain cases we also recommend a very pale yellow screen. This, however, must be used with discretion or brains, because half the beauty of a winter scene is frequently in the mist which enshrouds rather distant objects and gives them a peculiar unrealistic idea; by using too deep a screen, this charm is dissipated. Colour-sensitive or so-called Isochromatic or orthochromatic plates are valuable in this work, not only because they give better detail in the whites, but also because they are sensitive to yellow, and the light, especially in the distance, in winter is frequently yellow. Besides such pictures as we have indicated above, this season is the only one which allows one to illustrate such well-known lines as the following, which would make a very good but difficult subject for a prize competition:—

"When icicles hang by the wall,  
And Dick the shepherd blows his nail,  
And Tom bears logs into the hall,  
And milk comes frozen home in pail;  
When blood is nipp'd and ways be foul,  
Then nightly sings the staring owl."

Then, again, our country friends will find many a picture in the farmyard and fields, such as "Frozen Out"—which might be illustrated by some disconsolate ducks on a frozen pond—or illustrating the first two lines of the above song—a flock of sheep in the snow nibbling at some swedes, or huddled together for warmth, while "Dick the shepherd blows his nail." For our London friends we have scenes in the parks and streets under new aspects—boys skating or sliding, or we need but point to Mr. Gale's well-known "Foggy Day on the Thames" to prove that even smoky, dirty London still holds some pictures.

## Negatives and Positives.

IN the October number of the *Photographic Quarterly* Mr. Maskel says (p. 22), "As an example, I venture to present an illustration, ably etched in photogravure. . . . So far as I am aware, it is, however, the first that has been published. . . ." The *St. Louis and Canadian Photographer* (Nov., p. 464) says, "We will call Mr. Maskel's attention to our issue of November, 1886, in which we published a silver print. . . . from negatives taken without a lens. . . . Mr. Maskel is therefore only four years behind the times."

It is now our turn to call the attention of the *St. Louis and Canadian Photographer* to the *Camera Club Journal* (June, 1890, p. 145), where we read that Captain Abney said he was "one of the first to take pinhole photographs. Twenty-five years ago he had found an extemporised pinhole of great service on occasion in India when he had forgotten his lenses. They, at that time, thought the photographs abominable." The *St. Louis and Canadian Photographer* is, therefore, only twenty years behind the times.

By the way, some ingenious person has invented a term for the productions of the "new school." If the word "*fuzzygraph*" is not classical, it is at any rate self-interpretive.

LIEUT.-COL. VERNEY is to be congratulated for having put the "reduced fares" on the high road towards practical issue. Thanks are due to him for the step he has taken; our best wishes accompany him, and we hope to see, ere long, the gallant Colonel leading to victory the noble army of followers—comrades (camera-a-aids?) in arms—armed *cap à pie*; i.e., with lens cap and tripod legs.

SOME little flutterings have been made over the supposed discovery that everything visible can be photographed. Certain curious and remarkable phenomena or conjurors' tricks are said to have been witnessed and sketched by some of the spectators. Photographs also were taken, and on the evidence of these photographs it is assumed that appearances "unphotographable" must of necessity be hypnotic. It is admitted on all hands that the first lesson the scientific student has to learn is, discreet reluctance in being over-ready with an explanation. "There are more things in heaven and earth than are dreamt of in thy philosophy." We have recently learnt that stars invisible to the human eye can be photographed; *mutatis mutandis*, we may "reserve our judgment," and be prepared to find that there are things visible to the human eye which are not photographable.

WE are told that a certain enthusiastic amateur made during the last two years 30,000 exposures, and that his hobby has, during that time, cost him about £2,000. How does a "live fact" like that tally with the mutterings one hears at times that the amateurs are "ruining trade?" Without knowing any definite facts as to the way the £2,000 was spent, it seems not unreasonable to suppose that some part of it would find its way into the pockets of those who make plates, paper, mounts, and apparatus generally. It certainly would be interesting to know how it comes about that trade is being ruined by those who buy the tradesman's goods.

In the good old times the tradesmen were willing, anxious, to be ruined in that way, but *nous avons changé tout cela*—so they say.



Our own peculiar "parliamentary retorter" is all abroad again. He assures us that among the bills that are to be brought in are the following:

*By the Member for Korkumtite:* "For the abolition of births, deaths, marriages, engagements, divorces, generally and severally."

*By the Member for Paddletown:* "For a regular supply of sunlight, gratis, and of uniform actinism."

*By the Member for Figgurwick:* "To empower photographers to vivisect, dissect, or dynamite any person or persons who shall sneeze, wink, breathe, move, or otherwise disobey the said or implied instructions of the aforesaid photographer."

*By his Landlady:* "For seventeen weeks' rent in arrears."

## Letters to the Editor.

### CHEAP RAILWAY TICKETS FOR PHOTOGRAPHERS.

SIR,—I am glad to see that the photographic Press, the most powerful guardians of our interests we possess, have taken this matter up, and I feel satisfied that with their assistance and with the co-operation of the principal camera clubs, the desired end may be obtained. Perhaps the best course to pursue would be to present to the railway companies a petition, signed by as many societies as possible, in favour of the cheap ticket system, and showing some real grounds for the desired concession. Railway companies are business people, and while they are willing to meet the public they expect some return for all favours granted. It would be desirable to get the number of camera or photographic societies throughout the kingdom and the total number of their members, with other information that would strengthen our position. The West London Photographic Society would gladly leave the lead in this direction to one of the older societies, if one of them would undertake it, but, failing this, would be prepared to undertake the preparation of the petition, if the other societies would sign it. A united petition, with the Camera Club at its head, would carry great weight, and would no doubt succeed in obtaining similar privileges to those now enjoyed by our brothers of the "gentle" art.

Any information on this subject will be gladly received by our Hon. Secretary, Mr. John A. Hodges, 87, Chancery Lane, London.—Yours, etc.,

W. A. BROWN

(President of the West London Phot. Soc.)

SIR,—With reference to this subject, may I state what was done in this direction by the Toynbee Camera Club during 1890, their first year? Besides excursions to Wanstead, Harrow, Burnham Beeches, and other places in the immediate vicinity of London, our club rambles extended as far afield as Oxford, Winchester, Arundel, Hertford, Dorking, and Rochester. Alone we were, however, seldom able on our own account to take advantage of the reduced return tickets (usually a fare and a quarter) allowed to pleasure parties; one reason being that the secretary found it impossible to get enough replies in time to make the "two clear days" application required. We, therefore, invited friends to join us, or availed ourselves of invitations from other societies. Again, in our country rambles a difficulty stood in the way of cheap return tickets, viz., that as a rule we returned from a different station, and perhaps by a different line. I would therefore suggest for the consideration of the railway companies the establishment of a zone system and the issue of cheap return tickets. If the P.S.G.B. or one of our leading clubs were to take the matter up, I think the London societies might be federated, and so be put in a position to guarantee the sale of a certain number of tickets. Should the railway companies still continue obdurate, the federation would be able to organise weekly excursions, and so enable the smaller clubs to have the full benefit of the pleasure tickets.—Yours obediently,

LEWIS M. BIDEN.

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### STALE PLATES.

SIRS,—Being desirous of having the opinion of "experts" on some of my negatives, I took advantage of your "Holiday Work" competition last year by sending in eight prints, four of which were from negatives on plates sensitised in March, 1883, which

had endured voyages amounting to 25,000 miles. The other four were from plates made in January, 1881. These were all exposed in June, 1889, during a tour in North Wales, and not developed till my return to London.

I am a photographer of more than forty years' experience, and though I never enter for "competitions," I was anxious to see if anything could be detected in my prints as having come off "old stale plates." The result was perfectly satisfactory.—Yours obediently,

E. H.

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### PHOTOGRAPHS OF LIGHTNING FLASHES.

SIR,—In reading through the very interesting article on instantaneous photography, by W. Jerome Harrison, F.G.S., in your issue of the 28th ult., I beg to call your and his attention to a slight inaccuracy as to the date and producer of the first photograph of lightning flashes.

So far I have always had the credit of being the first to produce a photograph of lightning flashes; and in substantiation of my claim, I beg to refer Mr. Jerome Harrison to my article in the columns of the *British Journal of Photography* for July 23rd, 1880, page 353, three years before that now claimed as the first. My photograph was reproduced in *Cassell's Family Magazine* for 1881, page 253.

In the meantime nothing had been done or published by any other worker. By the insertion of the above in your valuable journal, you will oblige, yours truly,

25, Williamson Street, Liverpool.

R. CROWE.

Nov. 29th, 1890.

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### "AMATEUR PHOTOGRAPHER" LANTERN SLIDE COMPETITION.

SIR,—I should like, with your permission, to place on record a few ideas that occur to me after the careful and exhaustive examination we made on Friday last of the slides sent in to the AMATEUR PHOTOGRAPHER Lantern Slide Competition.

The first thing, of course, is to congratulate not only you, but all the competitors, on the exceptionally high standard of work sent in, and the gratifying results which have attended your efforts to make the competition a success. This high standard, satisfactory as it is in its way, may perhaps be disappointing to some competitors who might very naturally expect that their good work would receive some recognition at the hands of the judges; with them it is impossible not to sympathise, but it may perhaps be some consolation to know that they were beaten only by slides of the very highest class, and their defeat may serve as an incentive to them to make greater efforts on a future occasion.

Some competitors have sent in, say, two or three slides out of their set of ten, which are as good as can be made, while the remainder leave much to be desired. It would be well for them to remember that a set of slides of good average all round receives more marks than an uneven set, although the latter may contain two or three far superior to those of good, even quality.

Again, some competitors have disregarded your instructions about marking the slides; they are either not marked at all or marked wrongly. This entails a loss of time, which, in a competition of this sort, is of much value; but it should be said that only one or two were guilty of this oversight. It would be well, and I commend the idea to all lantern slide makers, to try their slides in the lantern before sending them in to a competition. Many slides which look extremely well by daylight fail to give such good results as one would expect when tried on the screen.

It is gratifying to be able to record a very marked improvement on the care exercised in the mounting—almost without exception the slides were admirably mounted and bound.

There is just one more thing I should like to mention—a large number of slides have evidently been made from negatives developed for platinotype printing, and consequently rather dense. It should be remembered that slides from negatives of this class require long exposure and quick development in order to get soft results; in many cases this point did not receive sufficient attention, and the slides were too hard.

I trust these criticisms will be taken by the competitors in the friendly spirit in which they are made. They are not made in my capacity as a judge, but are simply the expression of my own individual opinion for what it is worth, and, perhaps, when the slides all round were so good it is ungracious to make any criticism



at all; but attention to the matters I have pointed out would have raised the high standard of the competition even higher.

Certainly those societies who have been fortunate enough to get the promise of the slides on loan may look forward to a very instructive exhibition with admirable examples of composition.—  
Yours, etc.,  
CHAS. HUSSEY.

## Photographic References.

BY MAJOR J. FORTUNÉ NOTT.

(Continued from page 325.)

### PLATES.

*Hints Regarding Dry Plates (Continued).*—It is very necessary for a tyro in matters photographic to acquire at the very outset of his career the knack of doing certain things in a correct manner; for the acquisition of habits which the experience of skilled workers recognises as essential in the creation of good photography will greatly facilitate his progress in the art. To acquire the habit of manipulating photographic materials and appliances in a clumsy or careless manner is most avowedly a fatal endowment for any one who aspires to make a success as a photographer, or to create works free from those annoying defects which any critical person can immediately detect as entirely arising from want of care, attention, or cleanliness on the part of the operator himself, and are not to be classified with any of the defects which occur now and again owing to faults inherent in the appliances themselves, and which, therefore, cannot be easily provided against. The defects of his own making are so palpably evident that self-condemnation can be his only reward when he studies his work critically. We most emphatically emphasise the statement, therefore, that all the knowledge obtainable on the subject of photography will not enable any man to produce good and artistic work, if at the outset of his career he fails to acquire the knack of properly manipulating his appliances and of working carefully, cleanly, and with a certain amount of precision. To do all this, the importance of what might otherwise be considered as unimportant details must be appreciated. We enumerate that axiom here because by far the greater portion of the errors under this heading which the beginner in the art is liable to perpetrate will ultimately exhibit themselves in the plates he has exposed or developed. Of course, if the same carelessness is carried through the whole of his work, imperfections can be multiplied considerably in the printing, mounting, and finishing, even if the negatives were comparatively free from defects. But it is in the creation of the negative and his anterior manipulations that the true test of a photographer's skill is made manifest. It therefore is of vital necessity to maintain the purity of the sensitive plate at every stage, and to insure this its correct handling is unmistakably necessary. Its freedom from finger spots, scratches, dust, and other blemishes that can arise from laying it down in contact with any greasy, dirty, or wet substance are among the few advantages to be gained by this knowledge.

To be able to handle plates with easy precision, and with the quick and deliberate method of an experienced workman, has another advantage beyond the one immediately evident, for it enables the operator to work with a stronger light than would otherwise be possible if the plate were liable to be exposed by clumsy methods to its influence for any protracted period. And the art of being able to work successfully in a well-lighted dark-room, paradoxical as this description of the developing place may sound, is one which will amply repay for any trouble expended in its acquisition. Personal comfort, increased control

over the action of all chemicals, and a considerably reduced percentage of accidents are some of the chief advantages resulting from the employment of a well-lighted photographic laboratory. To an operator who has to be extremely careful to see that his work is only done in a room lighted by feeble rays from a gas-jet filtered through such very dark ruby medium that it is barely possible to see anything a foot away from the lamp, and even in such a room can manage now and again to produce fog, it appears as a feat approaching the marvellous, that any one can manipulate highly sensitive plates in such a bright light that every object in the room is distinctly discernible. Nevertheless, it is most certainly possible without having any risk whatever attaching to the performance. The art of doing this, although not entirely dependent on the skill to be acquired in handling plates, for other questions have to be taken into consideration, is very largely assisted by the power which is gained by possessing skill in this direction.

In another way also the necessity of this power can become evident. In such an apparently simple performance as the pouring on of the developer, clumsiness can convert the act into one destructive to a plate which might otherwise have produced a perfect negative. If the plate or tray containing it is not handled so as to have the developer flow immediately over the whole of the sensitive surface under certain conditions, markings that seriously mar the quality of the negative can be produced. Even the holding of the tray so that the developer covering the plate is kept deeper in one place than in another can exert a detrimental influence on the resulting negative.

Having drawn the beginner's attention to these matters, we need not enlarge further upon them. Suffice it to remark that at every stage of a photographer's work there will arise difficulties which only carefully acquired habits can possibly overcome, and the want of them can largely increase. This being so, the necessity of appreciating their importance is established. Our extended remarks on the subject are due to the fact that from critically examining the technique of a very large number of negatives which during the past few years have in one way or another come under our notice, defects arising entirely from the non-appreciation of the influence details of this character can exert have been distinctly evident. It is entirely in matters of this sort that the marked difference exists which creates the distinction in the quality of photographic work that evokes on one class the condemnatory criticism summed up in the word "amateurish."

Plates ought, under every circumstance where practicable, to be handled by poising them lightly by the forefinger and thumb of each hand holding opposite corners, while the remaining fingers are sustaining the weight of the plate from the back. In this way no risk whatever is encountered of getting the hands cut by the edge of the glass, an accident to which a careless handler of plates is always liable. Of course, the larger the size the greater the care that must be exercised to avoid breakage, for a plate's fragility is generally in proportion to its measurement, and its power of sustaining an accident of any sort is in an inverse ratio.

When plates are being inserted into the dark slides for use, it is always advisable, especially if they are intended for portraiture or figure studies, to examine the backs so as to see if the glass has any visible defect, produced by scratches, air bubbles, and other annoying vitreous ailments which may become of serious importance during the printing operations. It is always well to return plates of this character to their manufacturers, and ask for others of a better quality in exchange. It is only by so doing that the evil can be stopped, for it then ceases to be profitable to coat inferior makes of glass with valuable emulsion.

It is well, also, to remember that, as a rule, the thicker



coating the better the negative, and the slower the emulsion the greater the command over its development. Next to using a stale plate the most annoying discovery is to find that you are developing an unevenly coated one. When found, make a note of it for the manufacturer's benefit and for your own future guidance.

(To be continued.)

## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### CHAPTER IX.

#### INTRODUCTION TO THE STUDY OF THE HAND-CAMERA.

*The Hand-Camera must be Portable and Unobtrusive.*—Visitors to photographic exhibitions during the last few years—visitors who are themselves innocent of any knowledge of what is now *wrongly* called the "black art"—usually stay most frequently and ejaculate most loudly in front of such pictures as those of a train at full speed, a diver in mid-air, or a wave arrested in its course, scenes which from their very nature must have been photographed more or less instantaneously.

Let us suppose that we accompany a photographer whose object is to depict the ebb and flow of life in the streets of any of our large towns. Such scenes, as we know, require an average exposure of about the thirtieth part of a second. Our friend carries no "three-legged affair," no tripod (known to the general public as "legs"), to serve as a trade-mark. Indeed, it is his object to excite no unnecessary attention. For not only does a crowd round the camera interfere with the doing of any work at all, but the "posed" figures of people who know that they are "in the picture" destroy most of the attractiveness of the finished result.

*Use and Abuse of the Hand-Camera.*—It is not, therefore, with any desire to act as a "detective," that the wandering photographer, intent on depicting the busy life of the streets of a great city, equips himself as unobtrusively as possible. The term "detective camera" came into use, presumably, because the inventor of the first camera which could be used without attracting the attention of passers-by, believed that its main use would be in "detecting" the individuality of criminals. But the modern worker rightly prefers to call his simple implement a "hand-camera;" and he does not care very much if he is himself "detected" while using it; that is, if he is careful not to use it wrongly, or in a manner that could in any way pain or trouble those who chance to be present. It is true that instantaneous photography has been of great service to those whose *business* it is to pursue and identify criminals; but it may be taken for granted that no "amateur" has any desire to interfere with their functions. As for those who would use photography as a means for simply *annoying* their fellow man (and, of course, the term "man" embraces "woman"), it is sincerely to be hoped that they will always meet with their deserts.

*At Work with the Hand-Camera.*—We shall speak separately of the evolution of the "detective" or—as we much prefer to call it—the *hand camera*. Probably the first was Mr. Bolas's "boot-black's box;" and we have since had a camera concealed in the hat, in the vest, and in the neck-tie. But we will consider that our street picture-making friend is equipped only with a modest black box, occupying about the one-sixth of a cubic foot, and weighing about four or five pounds. With this under his arm he walks about likely spots in search of "subjects," or seeks a vantage ground on the tops of omnibuses or trams. Soon some attractive

incident meets his eye—a group of flower-girls, some children drinking from a City fountain, a "slight dispute" between two roughs. A spring is touched, a slight "click" heard, and each scene is recorded with a detail and a faithfulness which laugh to scorn the efforts of the most experienced artists, and which would have won for the photographer only three short centuries ago the name of wizard or magician, with the honour of taking part in a procession to the stake, there to receive the "martyr's crown of fire." Yes, with his black box our friend has performed a "modern miracle;" and this should surely induce us to examine more closely the instrument by which so marvellous a result has been obtained. Any attempt to open his wonder-working box, however, seems to excite our friend's wrath in no slight degree; but our curiosity is appeased by receiving an invitation to accompany him to his home, where we enter a room lighted by ruby light, and where the magic box is placed in our hands with free permission to open and to examine it.

*Construction of the Hand-Camera.*—Unlocking the little oblong box we note a lens at the front, connected with which is a contrivance—familiarily called a *shutter*—by which the lens can be very rapidly uncovered and then closed again. At the other end of the box is a glass plate, one side of which is coated with a white material which looks something like a layer of white paint; and there is a reservoir of about a dozen of these plates, with an ingenious contrivance for placing them in turn so as to receive the image produced by the lens. And is that all—(1) A box or camera, (2) a "shutter," (3) the lens, and (4) the plate which receives the image or picture, and which in some mysterious way seizes hold of and retains that picture? These are the four essential parts of any apparatus designed for use in instantaneous photography. It is true that the variations are infinite. The shutter may be of a hundred different forms; the plate-changing apparatus may work in a hundred different ways; the camera and the lens may be of very varied forms and materials; and the glass plate may be replaced by a roll of coated paper, or of a material called celluloid, but the principle remains the same. A dark box with a lens at one end and a sensitive plate at the other; and the means of opening and closing that lens very rapidly. That is all!

*Instantaneous Photography Based upon the Extraordinary Sensitiveness to Light of Gelatino-bromide of Silver.*—We will now consider, in turn, the four articles named above, which unite to form the hand-camera of the present day; and we will commence with the sensitive dry-plate or film which receives and retains the picture, and which is the most markedly "photographic" part of the whole equipment. Cameras, lenses, etc., were known long before the days of photography: it is the sensitive coating of gelatino-bromide of silver upon glass or some other foundation which has, practically, made instantaneous photography popular and possible.

*THE STEREOSCOPE AS A DETECTIVE.*—Photography, as is well known, has often been utilised to detect forgeries, additions and alterations to written documents, and the following statement which we have just seen is the first, to our knowledge, showing that the stereoscope has been used for the same purpose. A note of a hundred francs was recently submitted to the experts of the Bank of France as having been issued by a band of forgers, but the execution was so perfect that no defect could be discovered. A suggestion was then made to place the suspected note side by side with a genuine one in a stereoscope. The result of the experiment was that the loop in a letter of the forged note did not exactly cover that of the genuine one, showing that they had not been printed from the same plate.



## Exposure.

By W. MILES BARNES.

LOOKING over some old negatives to-day, I lighted upon a view of Lulworth Cove, taken, I am afraid to say how long ago, but I fear it was thirty years at the least. Up to the time of taking that negative, I had practised out-door photography under all the disadvantages which were common to the wet-plate process, and accompanied by a cart-load of material, for development had to be carried out on the spot and in a stuffy little tent which was just large enough to admit the head and arms. Major Russell had published his tannin preservative process a short time before, and having prepared some plates according to his formula and tested them at home, I had brought the first batch of them into the field. I remember, as if it was yesterday, setting up the camera, drawing the slide, and then walking off to an inn half a mile away, for lunch. I returned in about an hour or an hour and a quarter after lunch, recapped the lens, and this negative was the result. It would not suit the amateur of to-day to give an hour and a half exposure to a dry plate, any more than it would suit him to prepare his own dry plates, but it was a great relief in those days to be able to take a negative in the field without having to carry about a load of impedimenta. The prolonged exposure was due to the comparative insensitiveness of the washed collodion film. Insensitiveness is not a fault which can be charged to the modern dry plate, but there are other causes which govern the exposure of sensitive plates. Let us inquire what they are. First is the angle at which the sun's rays strike the earth's surface. Cut a square hole in a card, and hold it so that the sun's rays may fall almost perpendicularly through it upon another card held beneath, and note the space covered by the sunlight, and the intensity of the light. Now incline the lower card at an angle of less than 45 deg., and note how much larger is the space covered by the sunlight, and how much feebler that light is. The lower card in the first experiment represents the earth's surface at midsummer; in the second, at Christmas, the same rays of the sun which in the first experiment pass through the opening are distributed over a larger area; hence the feebler light, and the necessity for prolonged exposure in the winter and when the sun is low. The tables of exposure for each month in the year are calculated by the inclination of the sun's rays for that month.

The length of exposure is also governed (2) by atmospheric conditions. The quality of the light influences the exposure. In yellow sunsets, London fogs, and thick weather, the light is often much slower than it appears to be, owing to the absence of actinic light. A few days ago, whilst photographing, the sky became overcast, and I had to increase the exposure from  $1\frac{1}{2}$  to 10 seconds to obtain the same results.

When photographing in France and Switzerland two years ago, I found that with the same exposures I had given in England I was over-exposing, and had to reduce the exposure by one-half. The difference was due to the freedom of the atmosphere from fogs, and the predominance of actinic rays of light. I developed a test plate or two—as I always do in a new locality—and having determined the speed of the light, I had no further difficulty.

In photographing in the Alps and on mountains generally where the light is very fast, a shutter must be used or a pinhole stop. The latter is easily manufactured out of a bit of sheet brass or zinc, marked from another stop, cut by an old and strong pair of scissors, finished with a file, and with a hole drilled by a small shilling drill. For photographing amidst the glaciers and snows, I manufactured a stop which

required four times the exposure of  $f/32$ , and excellent negatives resulted from its use with cap-off-and-on exposures.

Every one will have noticed how much faster the light is by the sea-side than inland. This is due to the absence of obstructions to the light and to the reflections from the sea of the blue of the sky; consequently instantaneous pictures are possible by the sea-side when they are impossible inland.

For a similar reason snow scenes can be obtained in mid-winter, with the same exposure that would be given to an open view in mid-summer. (3) The exposure will be regulated by the size of the stop used; and the size of the stop used will depend on the purpose for which the negative is required. If the negative is intended for enlargements, a full exposure and a small stop,  $f/32$ , will be found best. A negative full of detail, of half-plate size, will yield an enlargement 12 by 10, which will be indistinguishable from a direct print. If the negative is for direct printing a larger stop may be used, and for studio work the largest which will give sufficient definition. I am now using in a studio  $f/11$  with Dallmeyer's rapid rectilinear, and prefer the results to those obtained with a portrait combination.

In photographing interiors, a good deal of judgment is required to determine the right exposure. A good plan in working large plates is to make a trial with a quarter-plate camera, using the sized stop proposed for the larger camera, and to be guided by the result.

*On Timing Exposures.*—Most photographers carry a bit of string with them; it is useful for tying up fractures and loose apparatus, and for a plumb line, but one of its uses might be to learn to count seconds accurately. Close the blade of your penknife on the end of it, and hold it three feet from the knife and you have a pendulum, which, whether it swings through a larger or a smaller arc, always beats seconds. Practice with it until you can count seconds accurately, you will then be able to enter your exposures accurately and compare them with others.

For enlarging, not to waste paper it is as well to try a small bit of the sensitive paper in the enlarging camera first. Having thus determined the strength of the light, it will be possible to continue the exposures consecutively, varying only for the density of the negative, and thus be certain of successful prints before development. I prefer a rectilinear lens with  $f/22$  stop, and a slow paper for enlarging, using daylight in preference to artificial light, a fast paper, and larger stop.

## Science Notes.

MR. H. C. RUSSELL, of the Sydney Observatory, New South Wales, has obtained a series of beautiful photographs of portions of the Milky Way, with the aid of the 13 in. refracting telescope which he proposes to use in the international photographic survey of the heavens. These photographs were passed round at the meeting of the Royal Astronomical Society on November 14th, and attracted much admiration.

The new Italian Observatory, which has been built at Catania, has celestial photography for one of its principal objects. Professor Ricco has been appointed as the first director.

At the meeting of the Academy of Sciences at Paris, on November 17th, M. A. Laussedat read a "Note on the Construction of Plans from Views obtained at Elevated Points in the Atmosphere," in which he described a method by which the photographic views obtained from balloons may be reduced to plan.

The editor of the *Art Journal* promises many good things for the coming year, including an article on "Recent Photography," by Charles W. Hastings. Is this not our own friend of the AMATEUR PHOTOGRAPHER?

The Mayor of Chester, Mr. C. Brown, sent to the British Archaeological Association, for exhibition at their meeting of



November 19th, some photographs of the remarkable Roman column which was found *in situ*, during some recent building works, on his property in Westgate Street. The column has now been preserved on the spot where found, by the construction of an arch over it to carry the new building.

I hear from Germany that a new luminous paint is being sold in Berlin by Fretzdorf and Mayer, Steinmetz Strasse, 15, retail at four shillings per pound, in the form of either oil or water-colour, and shining in the dark with either white, red, blue, or yellow light, according to the variety purchased. Such a paint may be capable of doing service for photographers; its price is less than half that of Balmain's luminous paint, which has been used for some years on a small scale in this country.

The Franklin Electric Company, of Chicago, is making for the inventor, Mr. M. J. Steffens, of the same city, an "automatic photographing machine," which "works" when a quarter-dollar is dropped in the slot. A "flash" of magnesium powder supplies the actinic force necessary, so that the machine is independent of sunlight.

Professor S. P. Langley finds that the "cheapest form of light," *i.e.*, that produced by the use of the least amount of any other kind of energy, is that produced by the glow-worm, the fire-fly, and other phosphorescent animals.

Mr. J. B. Stone, the President of the Birmingham Photographic Society, is about to take a hand-camera for a tour round the world, his object being to secure, especially, representations of scientific phenomena, such as those presented by volcanic regions, etc. In wishing him a pleasant voyage and a safe return, I feel confident that I am only expressing the wishes of every amateur photographer. I trust that Professor Burton will be able to provide "model" volcanic eruptions—with a typhoon by way of change—in Japan.

F. G. S.

## Our Contemporaries.

*Anthony's Photographic Bulletin* says, "An indication of the value of photography to the scientific world is to be seen in the constant experimenting which is being carried on by prominent scientists both in this country and abroad. Professor Ahn, of Breslau, has, by its means, recently succeeded in fixing the indications or symptoms of different diseases of the eye, which must prove of great value to the medical profession; while at the same time a very prominent anthropologist of the world has lately, in Paris, been engaged in making a collection of the various types of mankind. The result of his researches induces him to believe that the type or race-mark is much more easily to be recognised and better preserved among women than among men, and he has, therefore, secured photographic likenesses of many of the most beautiful women to be found in the course of his travels, which fact has brought out a suggestion from a leading photographer, that all interest themselves in this direction to the extent of making similar collections, with a view of handing down to future ages something that may represent the standard types of beauty of the nineteenth century. For this purpose we would suggest the use of the platinum or carbon process for the prints." Articles: "Developing," "Making of Matt Surfaced Glass by Etching with Fluorine Compounds," "Certain Failures in the Carbon Process," "The Primuline Process in Actual Practice," etc.

The *Photographic Times* says, "The following orthochromatic method, originally published by Ducos du Hauron, is still employed in Vienna copying establishments: Dissolve eosine, 22 grammes, in alcohol of 95 per cent., 250 c.c.m., and add bromide of cadmium, 45 grammes, and filter. Finally add 250 c.c.m. ether and of a 2 per cent. collodion, 1,000 c.c.m. The silver bath consists of

Water	..	..	..	..	1,000 c.c.m.
Silver nitrate	..	..	..	..	165 grammes.
Nitric acid	..	..	..	..	07 "

No more acid is required than will make the plates work free from fog. The sensitising lasts ten minutes, and must be done in very subdued, non-actinic, but not yellow, light. Without washing or immersing in a second silver bath, the plates are developed with

Water	..	..	..	..	1,000 c.c.m.
Ferrous sulphate	..	..	..	..	40 grammes.
Alcohol	..	..	..	..	30 "
Sulphuric acid	..	..	..	..	05 "

Development proceeds rapidly; fixing is done in a strong hypo solution. The red colour of the film yields only after prolonged washing. These plates are highly sensitive for yellow and green, but are not acted upon by positive red. If blue prevails in the original to be reproduced, a yellow ray filter of appropriate density becomes necessary." Articles: "Comedy in the Gallery," "Toning Bromide Prints," "Improving Negatives by the Use of Celluloid Films," "New Gelatino-Chloride of Silver Paper for Printing Out," "Development of Over-Exposed Films," etc.

*Anthony's Photographic Bulletin* gives the following table of the results of experiments, with flash-light, by Dr. Eder:—

KIND OF FLASH-LIGHT.	DURATION OF CONSUMPTION, SECONDS.
1. Explosive magnesium mixture (30 parts perchlorate of potassium, 30 parts chlorate of potassium, 40 parts magnesium powder, containing $\frac{1}{2}$ grm. magnesium); by means of cotton to be brought to ignition	$\frac{1}{10}$ — $\frac{1}{5}$
2. Pure magnesium powder, blown pretty rapidly through a glass tube into an alcohol flame by means of a rubber tube in the mouth; $\frac{1}{2}$ grm. magnesium	$\frac{1}{10}$
3. Pure magnesium powder, consumed in a Schirm's lamp; $\frac{1}{2}$ grm. magnesium powder blown through the flame by swiftly pressing a pneumatic bulb between both hands	$\frac{1}{10}$
4. Pure magnesium powder consumed in Ritter von Lochr's lamp; the magnesium powder is poured here into a reservoir and blown into the flame by means of a double rubber bulb, and pressing with the hand the foremost bulb at the moment of consumption; $\frac{1}{2}$ grm. magnesium	$\frac{1}{10}$
5. Pure magnesium powder consumed in a Dr. Hezekiel lamp; the magnesium powder thrown into the glass chimney of a petroleum lamp by a kind of sling; $\frac{1}{2}$ grm. magnesium	$\frac{1}{10}$

*Wilson's Photographic Magazine* says, "For intensifying a negative the property of bichromate salts of becoming insoluble in the light when mixed with gelatine, may be made use of. A process similar to the 'dusting process,' also is made to serve. The formula for the solution may be as follows:

Sugar	..	..	..	..	..	20	parts
Grape sugar	..	..	..	..	..	100	"
Gum arabic	..	..	..	..	..	50	"
Saturated solution of bichromate of potash	..	..	..	..	..	125	"
Saturated solution of ammonia	..	..	..	..	..	125	"
Water	..	..	..	..	..	1,000	"

After dissolving the solids the solution should be filtered very carefully. The plate to be intensified, which should not be varnished, but hardened with a 1 : 50 chrome alum solution and then well washed, is now spread with a little of the solution to drive out the water. The quantity poured out is flowed off, air-bubbles are removed, as in flowing a plate with collodion, the plate allowed to drip, and then dried in a gentle heat. As soon as it ceases to feel sticky it is put in the printing-frame, covered with a rubber-cloth, and exposed to the light. By this means the light penetrates the shadow parts of the negative, and renders them insoluble, while the portions of the gelatine under the lights remain more or less unaltered. The plate is now laid horizontally in the dark-room, over a mirror or a sheet of white paper, so that it can be seen through. Fine graphite powder is then spread over it by means of a broad and soft camel's-hair brush, and rubbed gently about on it until the unexposed parts, which have become sticky from the moisture in the atmosphere, are sufficiently strengthened. Thus one has perfect control over the degree of intensification. When this is done, the plate is dusted off and exposed on both sides to the light. It is then well washed, dried, and varnished. It is necessary for the success of this process that the negative should be clean and perfectly free from dust." Articles: "Lighting and Expression, Some Photographic Suggestions," "Sulphite of Soda in Photography," "Newspaper Pictures," "Modern Reproductions," "Practical Points for the Studio," etc.



## Notes from the Liverpool Centre.

(By our District Editor.)

At their ordinary monthly meeting this week, the members of the Walton Photographic Society are having a few practical hints on the manipulation of lantern slides from Mr. W. A. Brown. Mr. W. Beaton (of Messrs. Atkinson and Son) exhibits some novelties in connection therewith. Messrs. H. T. Livesley and W. E. Parry are to be elected members.

On Thursday, 11th inst., the Birkenhead Society have their annual lantern slide competition. This will be the first meeting in the Society's new rooms, at the Birkenhead Y.M.C.A. new building—rooms fitted and appointed with all photographic requirements, and which have had the best recommendation of expert workers in photography. The ordinary room will accommodate about 100 persons; in the large room, which is to be utilised for open lectures and demonstrations, 1,000 persons can be accommodated.

Mr. E. M. Tunstall, the Hon. Secretary of the Liverpool Society, is to give his "Normandy" before the Southport Photographic Association this Saturday, 6th December.

Last Wednesday Mr. Paul Lange had a crowded and appreciative audience at the Liverpool rooms, when he demonstrated on lantern slides. His views of Eaton Hall, and round and about Criccieth, were much admired. Next Wednesday Mr. Christian illustrates the toning of lantern slides, by intensifying with mercury and toning with gold and ferricyanide of ammonia.

Mr. S. P. Gibson, of Hexham, has forwarded his fine set of pictures to the Liverpool Society. They will be exhibited this week.

An abridged report of the proceedings at the Liverpool Society's annual meeting last Thursday appears in another part of this issue. The yearly report of the President and Council of the Society, of which I send a detailed draft, is pregnant with interest and worthy of serious consideration. It covers nearly the whole working of the Society during the past twelve months, and shows the Association to be in a most flourishing condition. The finances of the Society are all that can be desired.

## Exhibitions.

### THE EDINBURGH PHOTOGRAPHIC EXHIBITION.

(By our District Editor.)

THINGS still go merrily on in connection with the Edinburgh Photographic Exhibition, to which a variety of matters give their aid; not the least of which was the very successful "At Home," which the Editor of the *AMATEUR PHOTOGRAPHER* held in the Waterloo Hotel on the opening day. Not a few of the amateur photographers of Edinburgh look back with pleasure to the pleasant hour they spent looking over the splendid specimens of photography which had been brought from London for their delectation, and in listening to the explanations of them which Mr. Hastings so obligingly gave. Such a public-spirited act will not soon be forgotten among the large army of photographers in Edinburgh, among whom the *AMATEUR PHOTOGRAPHER* is looked up to as their best "guide, philosopher, and friend" among all the current literary adventures that are devoted to their art. I stood for half an hour the other Friday afternoon at the counter of a local dealer in photographic publications, and I was surprised as well as delighted to see such a large number of *AMATEUR PHOTOGRAPHERS* sold. The parcel had just arrived, and there seemed to be quite a rush on the part of readers to get hold of its treasures. If the Editor could find it convenient at an early date, say in connection with the Exhibition Friday evening lectures, or otherwise, to pay us a second official visit, I have no hesitation in saying that the already powerful bonds which unite the amateurs of this city to the *AMATEUR PHOTOGRAPHER* would be very much strengthened.

Last Friday night's lecture at the Exhibition was delivered by Professor Jas. Hunter, of Edinburgh, under the presidency of Mr. W. T. Bashford (Portobello), one of the Vice-Presidents of the Society. The rooms were crowded. Professor Hunter is an excellent lecturer, and being thoroughly well versed in his subject, "Photographic Optics," he kept the attention of his audience for nearly two hours while he treated of it. Begin-

ning with the remark that it was not so very long since mathematical principles were applied to the construction of lenses, before which time, he said, a lens might or might not be good, according to accident, he went on to explain the scientific principles which underlie the construction of lenses. Much practical instruction was given as to the way in which the focal point of a lens is to be found, and the proper place for the diaphragm. With regard to the latter, it may be necessary, for the sake of any young photographers who may have been present, to remind them that he dealt chiefly with the single lens. Time did not permit him to go into the rectilinear lens, as no doubt he would have desired to do, and so his warnings against placing the diaphragm in the wrong place need not frighten them. Having said this, it may be necessary to explain that the lecturer's theory was that the diaphragm should be a movable object, in order that it should be worked so as not to interfere with definition. No lens, he said, was perfect. Even the best was but a compromise between spherical aberration and sharpness of image, but at the same time he was satisfied that lenses were now as perfect, at least for photography, as they ever will be, and he also considered that the lenses we now have are already too good for the rest of the apparatus which we employ. Speaking of lenses to give atmospheric effect, such as artists desire, he said that probably an artist would select one in which there would be several errors. He did not wish to decry artistic work, but a photograph was a different thing from a picture, and to him its extreme minuteness was one of its greatest values. At the close of his lecture, Professor Hunter, using water bottles for lenses, showed, by means of the lantern, the effect of the use of the diaphragm, in preventing distortion, as well as sharpening up the picture when properly used, and in creating distortion when improperly used.

The jurors, it has been arranged, are to visit the Exhibition on Friday first, and their awards may be looked for in a week or two afterwards, at least so I am informed.

Although the weather has not at all improved since I wrote my last, but, indeed, was on some days worse, the Exhibition has been better attended. It is coming to be better known, and in the course of the present month, particularly towards the close, it may be expected to prove an effectual draw. I find that there are in it no fewer than twenty-four different printing processes, made up as follows: Platinotype, 439; silver, 218; gelatino-bromide 141; carbon, 66; aristotype, 42; autogravure, 16; Obernetter, 16; autotype, 10; colotype, 10; calotype, 10; argentotype, 8; photo-lithography, 6; matt silver, 6; carbon opal, 6; opal, 5; sepia, 5; photo-etching, 5; photogravure, 3; intaglio rep., 2; and one each of kallitype, collodion positive, Celerotype, sepia carbon, and special. Over fifty exhibits are not named in the catalogue, but it is probable they belong mostly to platinotype and silver. Most interest centres in the platinotypes, of which the principal examples are by Crooke, Edinburgh, who shows a magnificent series of portraits, chiefly of Scottish judges. The works also of H. P. Robinson, particularly his "Moor Hen," "Honeysuckles," and "Ferrying them Over," as well as the works of Lyd. Sawyer, who exhibits thirteen exquisite subjects, are also very much admired. Mr. and Mrs. Anckorn, Arbroath, a couple of north-country photographers of great merit, exhibit fifteen frames of genre subjects, mostly interiors of Scottish peasant homes, in all of which there is evidence of true art in the composition, as well as of the most appropriate handling in the execution.

### TUNBRIDGE WELLS PHOTOGRAPHIC EXHIBITION.

This exhibition was opened on the 26th ult. by Sir David Salomons, Bart., and Lady Salomons. Unfortunately, the weather was most inclement—many inches of snow upon the ground—and snow falling heavily. We fear that this must have militated very much against the success of the third annual exhibition promoted by the Tunbridge Wells Amateur Photographic Association.

The number of entries exceeded those of last year, and are notably of better quality. The many calls upon our space will prevent our doing more than comment upon a few of the pictures shown. The following is a list of the awards:—

Sir David Salomons Medal.—F. G. Smart.

AMATEUR PHOTOGRAPHER Medal's.—Silver, Joseph Chamberlain; Bronze, Daniel Howard.



Class 1 (Architecture).—Silver, Joseph Chamberlain; Bronze, F. G. Smart.

Class 2 (Interiors).—Silver, Joseph Chamberlain; Bronze, H. T. Wood.

Class 3 (Landscape).—First, A. W. Pierson; Bronze, Daniel Howard.

Class 4 (Instantaneous).—Silver, F. G. Smart; Bronze, W. B. Cassingham.

Class 5 (Genre).—Silver, F. G. Smart; Bronze, A. W. Pierson;  
Class 6 (Lantern Slides).—Silver, A. W. Pierson; Bronze, Alfred Cornell.

Class 7 (Transparencies).—Silver, Withheld; Bronze, Joseph Chamberlain.

Class 8.—Withheld.

#### OPEN CLASSES FOR AMATEURS.

Class 9 (Landscape or Seascape).—Silver, John Naylor; Bronze, Ernest Beck.

Class 10 (Genre).—Silver, John E. Austin; Bronze, Alex. M. Morrison.

Class 11 (Lantern Slides).—Silver, J. E. Austin; Bronze, E. G. Lee.

Class 12 (Architecture).—Silver, C. Court Cole; Bronze, John Naylor.

#### PROFESSIONAL CLASSES.

*Photographic Reporter* Medals.—Silver, Percy S. Lankester; Bronze, Clarence James.

Class 13 (Landscape or Seascape).—Silver, J. P. Gibson; Silver (extra), Lyd. Sawyer; Bronze, C. P. Castine.

Class 14 (Genre).—Silver, S. N. Bhedwar; Bronze, Percy S. Lankester.

Class 15 (Lantern Slides).—Silver, G. W. Wilson and Co.; Bronze, Percy S. Lankester.

Class 16 (Portraits).—Silver, Percy S. Lankester; Bronze, Clarence James.

The judges were Sir David Salomons, Bart., Mr. H. P. Robinson, and Mr. C. W. Hastings.

Sir David's medal was awarded for the general excellence of the exhibit of Mr. F. G. Smart, the enthusiastic and able President of the Association. The AMATEUR PHOTOGRAPHER Silver Medal was given to Mr. Joseph Chamberlain, the Hon. Secretary, to mark their appreciation of the value of the photographs exhibited, and especially for his prints upon silk. Mr. Daniel Howard received the Bronze for the general good quality of his landscape photography.

In Architecture no very high-class work was shown, Mr. Chamberlain and Mr. Smart showing the best pictures, Mr. Putland and Mr. Pierson running in very well. Interiors, other than architectural: in this class the prints on silk, already referred to, were certainly the best.

Landscape was a large class; a pretty series, illustrating lines from Longfellow's "Brook," by Mr. Geo. Brittain, attracted some attention. Mr. H. T. Wood's views in Sussex, "Kent v. Yorkshire," showed care in selection. Mr. Daniel Howard, Kentish "bits," also well deserved recognition, and Mr. A. W. Pierson's were, many of them, exceptionally good. The Rev. A. T. Scott is a careful worker, and showed work of good quality and selection.

The Instantaneous Class had not a large number of competitors. Mr. W. B. Cassingham sent the greatest number of pictures, and Mr. F. G. Smart certainly the best. His "Fishing Boats in Whitby Harbour," "Whitby Harbour," "Landing Herrings, Whitby," and "Herring Fleet leaving Whitby," are amongst, if not the best work shown by members of the association.

It is rather unfortunate that we should so immediately have again to eulogise Mr. Smart for his good works, but we cannot refrain from praising his photographs contributed to the Genre class. "Waiting for the Boats" is a well composed picture. Two studies at Hastings, "Mending Nets," are very admirable; the figures in one of the pictures are, perhaps, a little too much on line. A series of "Coast Guards Drilling" are far away the best we have seen of such a subject. Many others entered in the class by this most enthusiastic worker are worthy of praise; in fact, the only exceptions are "A Gossip" and "Whitby Fisher Girls," both of which are badly lighted, and should not have been included in the series. The other photographs entered in this class call for no special comment. Mr. Pierson deserves his medal for "Carting," a well-balanced picture.

Lantern Slides: we regret that we had not an opportunity of seeing these when they were projected on the screen through Sir

David's triple lantern. We hear that they are of very fine value. The lantern shows each evening during the Exhibition have been great features, and have given much pleasure to the visitors. Sir David has placed the Association under another obligation, by a promised gift of an opaque lantern screen, fitted on roller in case complete. The foregoing remarks refer entirely to examples of photographic work exhibited by members; we shall now make a few remarks upon the "open" classes.

In Landscape or Seascape, Mr. John Naylor took first prize for his fine photograph "Sunshine and Shadow;" it is a fine breezy scene with cloud effects that endorse the title. Mr. Ernest Beck well deserves the second prize for his picture "Off to the Banks." Mr. Cecil V. Shadbolt contributes a frame of exquisite quarter-plate work, "Gems of Spanish Scenery," and views taken during a tour in Scotland. Mr. John E. Austin shows the "Shrimper," "As the Sun Goes Down," "Off to the Boats," and the "Road by the Sea," all admirable examples of his skill. Mr. T. J. English, M.D., sends a view of "Whitby," which is a good study of that much-photographed place. Mr. G. W. Ramsey has been fortunate in his view of "The Lake in Kew Gardens." Mr. Karl Greger, in his pictures "Evening" and "Low Water," exhibits good composition, and the tone is very charming. The contribution of Mr. John Brewer's "Fishing Smack and Tug off Gorleston" is a fine study. Another well balanced picture is Mr. J. W. Kenworthy's "On the Gulf of Corinth." Mrs. Marie E. Marriott is exceptionally happy in her rendering of "Sunset." "A View in Holmbrook Park," by Mr. John H. Smith, is spoilt owing to the chopping off of the tops of the trees in the picture: it is not, of course, always possible to have trees in their entirety upon the plate, but in most cases foreground could be well spared. Mr. C. Court Cole is doing some excellent work; one of the views exhibited was contributed to the AMATEUR PHOTOGRAPHER Inland Scenery Competition, and is reproduced in the *Reporter*. "A View at Clifton," and another, "On the Upper River, Oxford," are beautiful examples of landscape photography. Mr. G. J. Wightman exhibits several well chosen pictures; one, "In the Vale of Llangollen," is reproduced in the *Reporter*. Of the others, we consider "Low Water on the Medway" the best.

In Genre, Miss S. Ballard sends a carefully composed picture in "Contemplation," the pose of the figure being well studied. Mr. Austin takes first prize for his picture, "The Love Letter," which is perhaps the best of an inimitable series. Mr. Alex. M. Morrison deserves the second medal for his contribution, the judges' selection, "A Duet," a boy playing on a pipe to a lark or blackbird. All the exhibits of this competitor show knowledge of art and artistic composition. It is difficult to know why Mr. A. Chancellor's photograph of "Balloon and Parachute" should have been entered in this class. The picture is interesting as a possibility of photography, but from no other point. Mr. Henry Kilburn shows his picture, "Halloo! Rats!" which subscribers to the *Reporter* will remember, it having been reproduced in our criticism upon "Instantaneous, Animals," etc., competition.

In Lantern Slides, the prizes were awarded to and well deserved by Mr. Austin and Mr. Edgar G. Lee. The other competitors were Mrs. Marriott, Messrs. Shadbolt, Dr. Morton, Dresser, Faulks, Fawcett, and Bucknall.

Architecture (exterior or interior) found favour amongst a large number of workers. The first prize was taken by Mr. Court Cole for a splendid series of most perfect photographs, all taken at Oxford, and without exception some of the best work we have ever seen. Mr. John Naylor was placed second for his "Fountains Abbey." Very good work is shown by Dr. Morton, Mr. Beck, and Mr. Wightman.

This concludes the notice of amateurs' work, and we would like to add that one exhibitor, Mr. A. R. Dresser, who entered a very large number of pictures in each open class, could not expect to secure prizes for enlargements from negatives taken in hand-cameras, when such admirable direct work was shown. We should disqualify all enlargements unless they were entered in a class specially set aside for that purpose. We would also give a general note to exhibitors, and which may be fathered by more than one worker—all photographs should be carefully and cleanly mounted, the inside of glass thoroughly cleaned before framing, and the frames securely packed, in order that they shall not be scratched in transit. The executive of an exhibition are of course responsible for clean glass outside, and frames free from dust or dirt when they are hung, but for nothing more.

We have no space for further comment; the photographs ex-



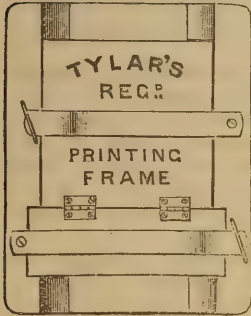
hibited in the professional classes were of a high quality, if not numerous.

We heartily congratulate the executive for the admirable arrangements, which reflect credit upon them, and more especially upon their courteous and enthusiastic Secretary, Mr. Joseph Chamberlain.

## Apparatus.

### TYLAR'S "PERFECT" PRINTING FRAME.

MR. WM. TYLAR, of 57, High Street, Aston, Birmingham, has just brought out a capital improvement in printing frames, which is shown in the accompanying illustration, where it will be seen



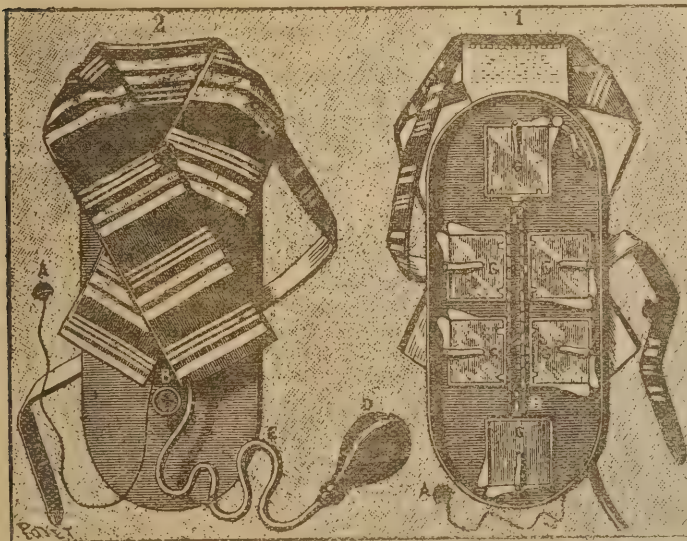
that the great advantages are that there is an even pressure in the centre, and it is impossible for the print to move during examination, as only one flap need be opened to examine the whole of the print. The front is bevelled, so that no shadows are cast on the print. The rebates where the negatives rest are cut dead true, and special hard-rolled brass springs are used, which strike us as being a great deal stronger than the usual run of printing-frame springs. The frame is well made, and at no higher price than the ordinary frame, should find a welcome in every

printing room. The prices are, for quarter-plates, from 9d. each; half-plates, 1s. 6d.; others in proportion.

### THE NECKTIE CAMERA.

The brief description of the latest form of the true "detective" camera—the invention of M. Edmond Bloch, of Paris—which recently appeared in our column of "Science Notes," has excited so much attention, and has been so largely reprinted by provincial newspapers, that we are induced to give an illustration of the instrument, with a fuller account of its peculiarities.

Fig. 1 represents the photographic necktie, and fig. 2 gives a



front view of it as it is to be worn by the operator, the metallic camera, which is flat and very light, being hidden under the vest. Fig. 1 gives a back view, the cover of the camera being removed to show the interior mechanism, comprising six small frames which are capable of passing in succession before the objective and which permit of obtaining six negatives. The instrument may be constructed with 12 or 18 frames. The apparatus is operated as follows. The necktie having been adjusted, the

shutter is set by a pull upon the button, A (fig. 1, No. 2), which passes under the vest. In order to change the plate, it is necessary to turn from left to right the button, B, which has been introduced into a button-hole of the vest, and which simulates a button of that garment. This button must be turned until the effect of a locking, which occurs at C (fig. 1, No. 1), is perceived, and which puts the plate exactly before the objective. In order to open the latter, it is necessary to press the rubber bulb, D, which has been put into the trouser's pocket. The rubber tube, E, passes under the vest and serves to transmit the action of the hand.

In order to charge the apparatus, it is opened at the bottom by turning the small springs, G G G; the sensitized plates are put into the frames, and the springs are turned back to their former position.

The apparatus is scarcely any thicker than an ordinary necktie. The camera that contains the plates is not more than 0.2 inch in thickness. The six frames are carried before the objective by an endless chain, as shown in the figure.

The enterprise of Mr. Walter Lawley, of 78, Farringdon Road, E.C., has succeeded in securing for this country the introduction of the "Necktie Camera," a full description of which we give above. This little camera is certainly entitled to the name "detective." Mr. Lawley will be pleased to show the "Neck-Tie Camera." We believe the price is £3 3s.

**ADHESIVE PASTE.**—A paste which will stick anything is said by Prof. Winchell to be made as follows:—Take two ounces of clear gum arabic, one and a-half ounces of fine starch, and half an ounce of white sugar. Dissolve the gum arabic in as much water as the laundress would use for the quantity of starch indicated. Mix the starch and sugar with the mucilage. Then cook the mixture in a vessel suspended in boiling water until the starch becomes clear. The cement should be as thick as tar, and be kept so. It can be kept from spoiling by the addition of camphor or a little oil of cloves.—*Chemist and Druggist.*

**HAZELL'S ANNUAL FOR 1891** (Hazell, Watson, and Viney, Ltd., 1, Creed Lane, E.C.).—Regularly with the advent of Christmas this familiar year-book makes its appearance and receives a unanimous welcome. Truly, the comprehensiveness of its 700 pages of contents is remarkable, embracing articles on subjects as widely varying as literature and racquets, Lady Hallé and cotton, and ecclesiastical law cases and the latest discoveries of science. For instance, we find an admirable and lengthy discussion of the photography of the year, discussing the questions of photography in natural colours, and other events interesting to the amateur. All the 3,500 articles are complete with the latest information on each subject. The political portion of the book is beyond all praise, while we find no less than 800 biographies of men and women of the day, together with details of current engineering schemes. To the general reader, articles on all the questions agitating literary, artistic, scientific, naval, military, athletic, and parliamentary circles will specially appeal. As an instance of the smartness displayed in the book, we may cite the fact that Mr. Parnell's position is dealt with, the death of the king of the Netherlands is recorded, and the judgment in the Bishop of Lincoln's case is summarised. The articles on mercantile marine, labour movements (15 pages), music, drama, literature, and football are specially full and interesting. From the article of photography we extract the following:—"Photography, as an aid to journalism, has made enormous strides; almost every illustrated paper has its staff of attached or unattached photographers. . . . It is a fact that hardly any illustrations appear in the *Illustrated London News* and the *Graphic*, but owe their origin to photography." In our opinion no year-book is so readable, so useful, or so cheap, the price of this handsome cloth-bound volume being only 3s. 6d.

DR. P. H. EMERSON has sent us a copy of his latest work, "Wild Life on a Tidal River," which we hope to review in our next issue.

THE 25th anniversary of the formation of the Solar Club will be celebrated by a dinner at the Cafe Royal on Monday, Prof. Glaisher in the chair. A large and distinguished company is expected.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BIRMINGHAM PHOT. SOC.**—The sixth annual meeting of the above Society was held on November 27th, Mr. J. B. Stone, J.P., in the chair. The Secretary read the annual report, which showed that the number of members was nearly 200; the photographic survey of Warwickshire was progressing, and it was intended to show a number of the pictures at the Society's exhibition in December. A large biennial lantern, the cost of which had been defrayed by donations of members, had been obtained, together with a collection of 350 lantern slides. The balance of cash and assets over liabilities was £78 15s. 3d. The report was unanimously agreed to. The following officers were then elected:—President, J. B. Stone, J.P., F.L.S., F.G.S.; Vice-Presidents, W. Jerome Harrison, F.G.S., E. H. Jaques, and B. Karleese; Hon. Treasurer, T. Taylor; Hon. Librarian, W. S. Horton; Hon. Secretaries, J. H. Pickard and A. J. Leeson. Mr. Smith, of the Eastman Company, exhibited the new No. 2 Kodak, and specimens of work done with their materials.

**BURNLEY PHOT. SOC.**—On the 26th ult. a very interesting meeting was held, when Mr. Holgate gave his experience during a holiday in Norway. The descriptions of the scenery, and the various incidents that occurred during his holiday were graphic, pithy, and occasionally humorous. By means of lantern slides he was able to take his hearers along with him through the rugged and sublime mountain passes of Norway. Although travelling on a bicycle he managed to take several excellent photographs. Mr. Holden also gave a racy description of his visit to Norway, illustrated by several beautiful views. Mr. Chadwick's new lantern was much admired, and will be a great help to the Society. The chair was taken by Mr. J. Butterworth, J.P.

**CARDIFF AM. PHOT. SOC.**—The ordinary meeting was held on the 28th ult., Mr. Lewis in the chair. Mr. S. W. Allen gave a demonstration of the working of the oxygen gas-tanks presented to the Society by the late President, Mr. P. Mansel Franken. The lecturer explained the different tests for ascertaining the purity of the chemicals employed, and made an explosion in a small way, showing the danger of mixing the gases. The cubic capacity of the tanks is 12 ft., and the working of same left nothing to be desired. The Society has also been presented with a 10 ft. screen (Dyson's Opaque) by the President, Mr. C. F. Gooch.

**CROYDON MICRO: AND NAT. HIST. CLUB.**—The twenty-first annual soirée of the Croydon Microscopical and Natural History Club was held in the Public Hall, on November 26th, when, in addition to the excellent display of microscopes and objects of interest which usually characterises these meetings, the photographic section came well to the front with a very admirable exhibition of pictures on albumenised, bromide, platinum, and gelatino-chloride papers, together with a large and choice selection of transparencies and lantern slides. An exhibit of great local interest, entitled "Condemned Croydon," was shown by the Hon. Sec., Mr. W. Low Sarjeant. It consisted of a series of two dozen whole-plate prints of that part of old Croydon which will shortly be pulled down for the borough improvements. The hall was beautifully decorated with flowers and plants, kindly lent by a friend and member of the Club, Mr. Philip Crowley, and a small orchestra played a choice selection of music throughout the evening. The Club, which is still increasing its muster roll, has now over 300 members. Meetings for December:—December 5th, paper on "Photographic Odds and Ends," by W. Cobb; December 19th, lantern evening.

**ENFIELD CAMERA CLUB.**—A meeting of this club was held on the 19th ult., Mr. D. G. Pinkney (President) in the chair. After the business routine was concluded Mr. H. F. Knight read a paper on "Exposure." He said that he regarded correct exposure as certainly not second to correct development. He advised, according to his own practice, aiming at what may be called the shortest possible adequate exposure, and not trusting, as many do, more or less, to haphazard in exposure, and rectification in development. He said that broadly speaking there were three ways of arriving at correct exposure for a given subject under certain conditions and they were, firstly, by

experience; secondly, by tables; thirdly, by a judicious mixture of the two. Many photographers abused tables in theory, and it was the way of some beginners to abuse them in practice. For instance, an amateur, who, having set up his apparatus to take a view of the interior of Tintern Abbey (a roofless ruin), turned to his tables and found two minutes down for a well-lighted interior. The exposure was given, but the result did not come up to the expectations of the would-be photographer. Therefore, acquire experience, and use it together with your tables. There are seven different factors which helped to determine the length of an exposure, viz:—lens, stop, plate, time of day, time of year, nature of subject, and light, whether cloudy or otherwise. Mr. Knight having examined the seven factors in detail, ended by saying that the appearance on the focussing screen might and ought to be useful in determining the ratio for subject and light, and even an actinometer might be used by those who are addicted to such things. For his part, he found a minimum of experience and common sense, which was all he could lay claim to, quite sufficient for what is required.

**FORMBY CAMERA CLUB.**—At the ordinary meeting held on the 1st inst., Mr. A. Mason gave his demonstration on lantern slide making. Mr. Mason explained in detail as he went along until the finished picture was handed round for inspection. Four transparencies were made, Thomas's plates and developer being used, and highly satisfactory results being obtained. At the next meeting, on the 15th December, there will be a members' exhibition of cameras, apparatus, etc.

**GLENALMOND PHOT. CLUB.**—The fortnightly meeting was held on November 29th, the President in the chair. Mr. A. S. Reid gave a lecture on "The Best Methods of Making Lantern Slides," with various examples of work. The Warden of Glenalmond, an Honorary Vice-President, was present at the meeting.

**HACKNEY PHOT. SOC.**—The thirty-sixth ordinary meeting was held on the 27th ult. The awards in the competition (having been judged by Messrs. J. Traill Taylor and H. P. Robinson) resulted as follows:—Best picture taken on Society excursions, Dr. Gerard Smith; 2nd, bronze medal, Mr. W. G. Linsdell. Best seascape prize (Mr. Crouch's donation of a lens), Mr. W. Wesson. Architecture, silver medal, Dr. Roland Smith; bronze medal, Mr. F. H. Evans. Beginners' prize, bronze medal, Mr. F. W. Cock. Lantern slides, microscopical, Dr. W. A. Kibbler; artistic, Mr. J. Carpenter. Isochromatic prize (given by Messrs. B. J. Edwards and Co.), Dr. Gerard and Dr. Roland Smith. Nearly 200 pictures were sent in, and sixty-six entries were made. The gold medal or championship of Society was won by Mr. Walter Wesson, for a fine picture of "On the Wye." There were some good pictures entered; the judges were pleased with the efforts of this young Society. A subscription was set on foot to purchase a lantern, and was well responded to. It is expected that the new lantern will be ready for use at the exhibition. The Hon. Secretary presented the Society with a book on the lantern, by Chadwick, and the President gave a fine jet. Dr. Roland Smith gave a demonstration on the "Kallotype paper."

**HARLESDEN PHOT. SOC.**—The usual fortnightly meeting of this Society, held at head-quarters on the 26th ult., was well attended by members. The President, Mr. Naylor, was in the chair. Mr. Isaac Cohen, the Secretary, read a very exhaustive paper on "Photographic Chemicals." He thought that as science had tremendously increased in chemical knowledge within the past twenty years, so also had photographic chemistry expanded beyond the greatest expectations. The most brilliant discoveries in the future would lie between chemistry and electricity. Mr. Cohen then went on, with the aid of practical experiments, and with the use of a blackboard, to inquire minutely into the composition of (1) water, (2) pyrogallie acid, (3) sulphites, (4) hypo and sulphite, (5) ammonia, (6) gold, (7) iron.

**HOLBORN CAMERA CLUB.**—The meeting of the 28th ult. was a lantern night. Mr. T. O. Dear, Vice-President, occupied the chair. A large number of members' slides were shown, followed by "A Ramble in and about Columbus, Ohio, with the Columbus Camera Club." The slides included views in the capital of Ohio, and picturesque spots in the vicinity. Among the number were "The City Hall," "The Capitol," "Franklin Court-house," "East Broad Street (three miles long)," etc. There were a number of views of Indian mounds, supposed to belong to a period anterior to the North-American Indians, who are now fast disappearing before the white settler; together with a number of portraits of



eminent citizens. December 5th, Alpha lantern plates, The Britannia Works Company; December 12th, Fry's lantern plates, Mr. E. H. Bayston; December 19th, lantern night.

**LANTERN SOCIETY.**—On the 24th ult. there was an exhibition of lantern slides for members and their friends. A selection of about ninety slides was shown on the screen, and several lantern attachments were shown practically, in operation, namely, the kaleidoscope, pandiscope, cycloidetrope, and vertical attachment.

**LEITH AM: PHOT: SOC.**—The usual monthly meeting was held on the 25th ult., Mr. T. W. Dewar, Vice-President, in the chair. Dr. Hugh Marshall, Chemistry Department, Edinburgh University, was nominated for membership. Mr. R. C. Ewart read some notes on "Lantern Slide Making," and gave a demonstration. The Secretary showed specimen prints on Celerotype paper, also Moore's combination frame for lantern slides. The annual exhibition of members' work adorned the walls, and on the whole was highly creditable.

**LIVERPOOL AM: PHOT: ASSOC.**—The twenty-seventh annual meeting was held on November 27th. The President, Mr. Paul Lange, occupied the chair, and there was a crowded attendance of members. The following gentlemen were elected members of the Association, viz., Messrs. A. Lutschauig, Harold King, Alexander Watt, R. P. Gilbertson, W. Stone, E. Marriott, Howard Arnold, M.D., J. S. Pardey, and W. B. Hellon. The Hon. Secretary's report was read. After a discussion on some minor points, the statement was adopted. The following were elected the officers for 1891:—President, Paul Lange; Vice-Presidents, William Tomkinson and Joseph Earp; Hon. Secretary, E. M. Tunstall; Hon. Treasurer, P. H. Phillips; Librarian, J. Macdonald Bell; Auditor, Arthur Bradbury; Trustees, Paul Lange, J. Earp, and A. W. Beer. The following to fill the place of retiring members of the Council:—A. F. Stanistreet, Henry Lupton, F. B. Illingworth, and B. Boothroyd. The annual competition for prints, enlargements, and lantern slides received considerable attention this year, and excellent work was sent in. The prints and enlargements were adjudicated upon by the following gentlemen, to whom a hearty vote of thanks was unanimously passed:—Messrs. John Finnie, George E. Thompson, and B. J. Sayce, for prints and enlargements; Messrs. George E. Thompson, W. D. Mead, and J. Knott, for lantern slides. The whole of the slides, 102 in number, were shown in the lantern.

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES' PHOT: ASSOC.**—The next meeting of the above association will be held in the Mosley Street Café, Newcastle, on Tuesday, the 9th December. It will be a lantern evening, and the association's new lantern will be in use for the first time.

**PHOT: SOC: OF IRELAND.**—The usual technical meeting of this society was held on the 27th ult., Mr. Herbert Bewley in the chair. Two questions from the question-box were discussed; one relating to the advantages of having acid sulphite in the fixing-bath was directed to be replaced in the question-box for further consideration. Mr. James Carson, C.E., then gave a demonstration of "Lantern Work," and explained the best forms of jets, fittings, valves, etc., to be used in properly working either one or more lanterns.

**WEST KENT AM: PHOT: SOC.**—The ordinary meeting was held on the 20th ult., the President (Mr. Andrew Pringle) in the chair. Mr. C. C. Wiseman was elected a member. Mr. Pringle gave a very interesting paper on some old processes for lantern slide making, including dry collodion, wet collodion, and collodio-albumen, illustrating same by passing a series of slides through the lantern. Messrs. G. G. and G. F. G. Grant contributed prints to the album. Next meeting, December 10th, at Pavilion Station Hotel, Sidcup; Mr. Newman on "Present Tendencies of Photographic Art," concluding with a lantern show.

**WEST LONDON PHOT: SOC.**—An ordinary meeting was held at the Broadway Lecture Hall, Hammersmith, on November 28th, the President, Mr. Walter Adam Brown, in the chair, Mr. Pringle gave an address on "Bromide Printing." The lecturer, after describing the details of the manufacture of the paper, proceeded to say what a bromide print ought to be. Experience showed that many workers do not know what constitutes a perfect bromide print—the best test of its quality was that it should look like platinum at its best. The great advantage of the process was that whereas a special quality of negative was required for platinum and for silver, a negative unprintable by other methods would yield a passable result with bromide. Other advantages were that

the process could be worked at night, therefore light and exposure were under perfect command. In regard to exposure, no definite rule could be laid down, owing to the want of a standard light, but a few observations on development might be of some service. Working with a normal developer a black and white print meant under-exposure, and if the finished print were of a greenish or muddy tone the developer had not time to act properly. Ninety per cent. of failures were due to too rapid development consequent upon over-exposure; the great point to aim at was the control of development. A long exposure tended to lead to softness, and if carried too far to foggingness. Chalk and soot meant under-exposure. With a thin negative a sub-normal exposure, if hard a super-normal exposure should be given. A developer strong in iron meant strong blacks. If the print were from a thin negative the exposure should be short and the developer strong, and *vice versa*. It was hard to find a better developer than ferrous oxalate. He could not speak so well of pyro or eikonogen, but quinol gave good results. Both the iron and the oxalate solutions should have slight acid reaction. His method of making iron developer was as follows: before mixing acidify the water with sulphuric acid and then add the iron to saturation but do not boil. The oxalate solution was also to be saturated and acidified with oxalic or acetic acid. As to proportion for a strong developer, one to four oxalate, medium one to six, a good general strength being one to eight. He did not recommend diluting the developer with water, as it engendered graininess. As to the use of free bromide, half grain of it to the ounce of water was a usual quantity, and he advised that. As to quinol, he recommended Thomas' or any standard formula, but preferred carbonate to caustic soda as an accelerator. In regard to manipulation, the paper should be first soaked in clean water, the developer swept over and kept moving, the test of proper exposure being the regular appearance of the image; by the time the details show in the high lights the shadows should be plucky. With rough paper development should not be carried too far, as the print when dry looked darker. Thorough washing should follow the use of the acid bath. It was important to keep the hypo alkaline by the addition of a little ammonia, as there was a great tendency in the bath to become acid. If blisters appeared, a little salt in first washing water would overcome the difficulty. He recommended the use of a squeegee under a rose tap which would be more efficacious than prolonged soaking in a washer. Mr. Pringle concluded his remarks by practically demonstrating the process, the results being much admired by the members. A discussion followed, in which several members took part. After a vote of thanks had been unanimously accorded to the lecturer, samples of Messrs. Fry and Co.'s plates, bromide papers, and films were distributed. The next meeting, which is a lantern night, will take place on December 12th.

**WIGAN PHOT: SOC.**—A meeting was held on the 27th November, when Mr. J. A. Sinclair, of the Liverpool Society, gave a demonstration on "Development." Before proceeding to develop the plates which had been exposed by different members, Mr. Sinclair made a few remarks *re* the action of light on the sensitive salts of silver and the process of development. Three plates were then developed, two with pyro and ammonia, and one with eikonogen, three splendid negatives, as regards technical excellence being the result.

**WOLVERHAMPTON AM: PHOT: SOC.**—On the 18th ult. the local Literary and Scientific Society held their annual soirée, at which the members of the W. A. P. S. gave a demonstration upon "Photography." At the early part of the evening, groups were taken by means of the flash-light process, and later in the evening Mr. Ironmonger, President of the W. A. P. S., gave a short descriptive lecture upon "How to Take a Photograph," in which lantern slides were thrown upon the screen and illustrated his remarks; there were also a few slides of local interest shown, after which, slides of the groups taken earlier in the evening were thrown upon the screen, and caused a good deal of amusement. On the 25th ult., Mr. Smith, the representative of the Eastman Company, gave a descriptive lecture on the "Kodak Hand-Camera," from the original pattern down to the last new folding one, which is a wonderfully compact and splendidly finished instrument. Subsequently an enlargement was made for a negative taken with the Kodak, which proved the amount of definition to be obtained with these instruments. A short description of transparent films, with a discussion as to the merits of the same, was carried on with much interest.



## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4383. **Sensitising a Wood Block.**—Can anyone give me some information as to the best way of sensitising an engraver's wood block, so as to enable the negative to be printed direct on to the block? The film must be very thin, and but little water must be used in the process, otherwise the block would split, and be thus rendered useless.—G. W. HORNE.

4384. **Spots on Prints.**—Can anyone tell me the reason white spots appear on some of my prints, after they have been mounted? as a white spot has appeared on two or three prints from the same negative of a group I took in nearly identically the same place. I use starch, with a little sugar, and good mounting boards, and the prints have been well fixed.—L. E. R.

4385. **Lamp for Dark-Room.**—Can anyone tell me the best lamp to buy for use in a dark-room when developing, to burn oil, and when developing Wratten's instantaneous plates? I use one now with plain glass, covered with ruby calico, but the light is not good.—L. R.

4386. **Development.**—Can anyone inform me which plates are most reliable in development, Ilford or Paget prize plates?—D. S. N.

4387. **Retouching.**—Will some one kindly give me the address of a working retoucher, one who does good work for fair remuneration? Is the art difficult to learn? Are lessons given by anyone? I have the book on the subject, published by Marion and Co., but that is only of use to those who are already fairly proficient.—PORTRAITURE.

4388. **Printing.**—I am beginning to do my own printing for the first time, and should be much obliged to anyone who would tell me of a good inexpensive paper for giving purple tones? Also price of the same, and where to obtain it?—BEGINNER.

4389. **Tripod.**—Where can I get a very rigid but not very expensive tripod, one that extends to a good height, as I am rather above the average height? Is it better to get one that has folding or sliding legs?—BEGINNER.

4390. **Developer.**—About four months since I made up a large bottle of Paget prize plate developer. Will some one tell me if this will be good to use now? The formula is:—

Pyro ... ..	1 oz.
Citric acid ... ..	40 gr.
Sulphite of soda ... ..	4 oz.
Water ... ..	30 "

How long should this developer remain good? Will some one who has used it tell me if the formula is a good one for use with other makes of dry plates, as the Ilford, or Britannia, etc.?—ANDREW.

4391. **Developer for Bromide Paper.**—Will some kind reader of the **AMATEUR PHOTOGRAPHER** please say what quantity of developer would be needed for a packet of bromide paper, one dozen, quarter-plate size? and if the papers are developed separately?—BEGINNER.

4392. **Toning.**—In toning silver prints on albumenised paper by the acetate of soda and gold process, should the bath be warm? and, if so, what temperature? Is it best to warm it by (1) making up the bath with warm water, (2) heating it after made, or (3) putting the dish with cold solution

into a larger dish containing hot water? Also, when the bath tones slowly, and the test paper shows it to be acid, what is the proper alkali with which to neutralise it?—C. M. M.

4393. **Films.**—In using films, it is found that brushing as with plates, is apt to create lines. Is there any substitute for removing dust and preventing pin holes?—C. M. M.

4394. **Concentrated Hydroquinone Developer.**—Can any kind reader give me a formula for a concentrated hydroquinone developer, as sold by some dealers? Say two solutions—drachm of each to minimum of water. I have tried to make it, but cannot get the hydroquinone to dissolve.—G. H.

4395. **Exposure.**—Can anyone tell me where to get a book containing very rough outline drawings of the different kinds of views one meets when touring, with memoranda and correct exposure? Could not some of your more experienced contributors prepare this from their note books? I feel certain it would have an enormous sale.—PYRO.

4396. **Hire of Lantern.**—Should be glad to know if there is any firm from which a lantern could be hired for an evening entertainment in the country?—M. Z. H.

4397. **Developing Trays.**—Will some one kindly inform me how to make some developing trays for bromide paper, 12 by 10, light and cheap? Would Willesden paper answer?—JACK-A-JACK.

4398. **Pyro Developer.**—Should the dish be rocked during development? Some text books say no, as it allows the air to get to the surface of film, and causes oxidation, whilst if the dish is kept still the negative has a much better colour.—SANTOS.

4399. **Snow Scenes.**—What would be the correct exposure for this month, Ilford ordinary plate, R.E. lens, f/16, open view, dull day, and would it be better to use a smaller stop?—SANTOS.

4400. **Le Meritotre.**—(1) Have recently bought Lancaster's Le Meritotre, patent (1890) No. 310. The description of the above in Lancaster's catalogue says the slide reverses in an instant from vertical to horizontal. Does this apply to quarter-plate? (2) The wording "may be swung vertical, horizontal, and corner swing." Does this also apply to the swing-back of quarter-plate? (3) Shall be glad if you can give me the full capabilities of the quarter-plate Meritotre, focal length of lens, if any decent work can be done with it? Have done some very good landscape views, but am at a loss on the exposure to be given. Anything that you can refer me to on the instrument other than your opinion shall feel obliged.—MALTA.

4401. **Backing Plates.**—What is the best way to back plates for snow scenes?—P. G. SCHOLEFIELD.

4402. **Paper for Snow Scenes.**—What is the best paper to print snow scenes on? Would Marion's rose tinted bromide look well?—P. G. SCHOLEFIELD.

4403. **Snow Scene.**—The waterfall was taken on the 14th of August, at 5 p.m., light good diffused, stop f/32, lens half-plate Optimus R.E., on an Ilford Ordinary plate, exposure 8 sec., which proved correct. What exposure in December, as a snow view, at 11 a.m., in good diffused light, with same stop, etc.? Wormald gives 7 sec. in sunlight, but says nothing about snow. Shall I halve or quarter this for Ilford ordinary plate?—PYRO.

## QUERIES UNANSWERED.

- Oct. 3rd.—Nos. 4217.  
 17th.—Nos. 4239, 4250, 4260, 4261.  
 24th.—Nos. 4268, 4270, 4275.  
 31st.—No. 4297.  
 Nov. 7th.—Nos. 4310, 4312, 4314.  
 14th.—Nos. 4330, 4332, 4334, 4337.  
 21st.—Nos. 4343, 4345, 4354, 4357, 4361, 4362, 4364, 4367, 4368, 4369.  
 28th.—Nos. 4370, 4375, 4377.

## ANSWERS.

4355. **Glossy Surface.**—Squeegeeing may be all right; but for my part I have always distrusted it, and, in consequence, not attempted it, so I can say nothing on that subject. My mode of procedure is as follows:—I take a few old negative glasses, soak them in hot water to get the film off, then in dilute nitric acid, and again in clear water. Polish with the aid of precipitated chalk until, on breathing upon them, the moisture dries off regularly—not streaky. Then rub on some powdered French chalk with the cushion of my (clean) middle finger. Dust off the superfluous powder with a soft cloth—nothing better than an old handkerchief. Now the glass is ready, I put the wet prints into clean water, with the face downwards, and slip the glass under one of them, and lift out of the water. I put the glass with a print adhering in a fold of blotting paper, and draw some hard smooth substance over the blotting paper on the side the print is, so as to squeeze out as much water as possible, and then leave to dry. I have never had a failure, either with albumen, gelatino-chloride, or gelatino-bromide papers.—H. H.

4383. **Kallitype.**—The process is very easy to work; gives black tones similar to platinotype, but

more tender, and good results are got with it from dense or thin negatives.—NORSEMAN.

4386. **Blisters.**—If you will immerse your prints after toning in a mixture of four parts methylated spirit to one part of water you will not be troubled with blisters. Hard water is decidedly not good for toning.—D. NICOL.

4371. **Lenses.**—Make out a list of those you think are best, and send it on to the Editor of this paper. He will tell you which are the best, he having more opportunities of testing their qualities than we amateurs. The answer will appear under the "Editorial" column.—WILLEE.

4372. **Intensifier.**—Edwards' formula for intensification of dry plates:—

Saturated solution of bichloride of mercury ... .. 10 oz.  
 Iodide of potassium ... .. 10 drm.  
 Dissolve the iodide in 10 oz. of water, and pour gradually into the mercurial solution, until the precipitate thrown down is nearly re-dissolved. Add 1 oz. of hyposulphite of soda in crystals. Farmer's reducer:—

Saturated solution of ferricyanide of potassium ... .. 1 oz.  
 Hyposulphite of soda solution (165) 10 " —WILLEE.

4373. **Rivot's Self-Toned Paper.**—With this paper you will not get any great range of tone. Should advise you to take up Edwards or Spicer's ordinary silver paper, and tone it to the required shades. You will find this the most satisfactory.—WILLEE.

4374. **Bellows of a Camera.**—You will have to rack your bellows out 24 inches.—WILLEE.

4376. **Books.**—There are several very good text-books, such as "Burton's Modern Photography," or Capt. Abney's "Instruction in Photography." I would recommend you to get one of the above. As to second part of query, I think that Fallowfield's Facile hand-camera would suit you.—D. NICOL.

4376. **Books.**—Get the following:—Burton's "Modern Photography," Chapman Jones' "Science and Practice of Photography," Wall's "Dictionary of Photography." You will find a quarter-plate camera and three double backs quite as much as you will want to carry. This, on a carrier, fitted to the handle-bar of the Safety, will ride beautifully. If you care to write me through Editor I will send you a sketch of how mine is fitted.—WILLEE.

4378. **Carbon Printing.**—The Woodbury Company, 157, Great Portland Street, no doubt undertake double transfer carbon printing at a reasonable price. Write them, giving full particulars of requirements.—ALLIBONE.

4378. **Carbon Printing.**—Write to C. C. Veyers, 12, Market Street, Briggate, Leeds, for his price list, or to Marion's, Soho Square, London.—WILLEE.

4380. **Collotype.**—Messrs. B. Winstone and Sons, 100, Shoe Lane, City, supply everything for the above in small quantities for amateurs.—WILLEE.

4382. **Lanterns.**—You can obtain all parts of lanterns from E. G. Platt, Birkbeck Works, Birkbeck Road, Ridley Road, Dalston, N.E. He, being a brass finisher, can supply every part required, both for cameras and lanterns.—D. WITTRIE.

4382. **Lanterns.**—Write to W. H. Oakley and Co., 202, Grange Road, Bermondsey, S.E., or J. Wrench and Son, 39, Gray's Inn Road, W.C. They may supply you.—WILLEE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

J. W.—"A History of Photography," by W. Jerome Harrison, is just what you want. To be obtained from our publishers, price 3s. 8d.

R. N. BRADLEY.—Soak blotting paper in solution of carbonate of soda 1: 20; dry and cut to size of paper, then place the sensitised paper between this, and wrap in a whole sheet of sensitised paper, and keep under heavy weight in a tin box. The tone of the print you admire in the *Quarterly* is obtained by means of a pigment, the print being a Woodbury-type. You can only obtain the exact tint by the carbon process. You might try by using commercial washing soda, 2 oz.; water, at 100 degrees, 1 pint.

H.—Rub a sheet of ground-glass with solution of wax:—

Yellow resin ... ..	36 gr.
Yellow wax ... ..	12 "
Turpentine ... ..	2 oz.

Melt the wax, add the resin and turpentine, rub off with a clean tuft of wool, and then squeegee the print down, and strip when dry. Give your washer



two coats of Aspinall's bath enamel, and replace rubber in the tank by lead gas pipe.

**H. BURDWOOD.**—The only disadvantages are that you include a wider angle, and may, perhaps, have to use a smaller diaphragm, and, therefore, may lose slightly in brilliancy.

**DEUTSCHE.**—(1) Use a cold varnish, and apply with a brush, pinning the film to a board, or dip the film bodily in. (2) The gelatine mountant will keep; but not the tragacanth. Add about 1 drop of carbolic acid to the ounce of each. (3) Yes, certainly; back them. (4) You would do well to take them to some good German maker, such as Monckhoven. These can be had from Benque and Kindermann, Esplanade 2, Hamburg. (5) Yes; there would be no difficulty in doing as you suggest.

**DRY-PLATES.**—Your negatives are perhaps slightly under-developed. Increase your pyro and bromide. The said plates are 30, 40, and 60 times.

**V. C. A. T.**—The amount of solution is immaterial; the proportion is the great thing. There is no reason why you should not make up a small quantity. Nos. 1 and 3 solution will keep indefinitely. No. 2 about a month.

**J. TALBOT.**—(1) A very small stop produces flatness, and tends to destroy atmosphere and brilliancy. You must use your judgment, of course; but for landscapes,  $f/22$ ; portraits,  $f/8$ ; sea views,  $f/16$  or  $22$ ; interiors,  $f/32$ . (3) If you mean mercuric iodide and hypo, certainly not. Monckhoven's silver cyanide is good (see Wall's "Dictionary," p. 123, second edition). (3) Yes; about  $\frac{1}{2}$  oz. to pint. Try also adding carbonate of soda, 15 gr., for every grain of gold to the ordinary acetate bath.

**E. H.**—We publish the first part of your letter, for which many thanks. The judges only placed their award upon *one print*, in order to permit of the others being entered at exhibitions, etc.

**THOMAS NORRBY.**—The last mentioned is the best in the market. The others we place in the following order: 2, 3, 1, 4.

**A. BAY.**—See notices over "Sale and Exchange." Certainly; we criticise photographs, free of charge. Send the lens to us, fee 2s. 6d.

**ICONOCLAST II.**—(1) With pleasure. (2) Prevent the bath turning acid. (3) Long exposure and weak developer. (4) The lines are only meant as a guide to competitors.

**E. E. HOUGHTON.**—Will use at no very distant date.

**NEDRA.**—Very fair work for a beginner.

**GEORGE H. LOGAN.**—Any good gas-fitter will supply the light, or you can apply direct to the Incandescent Gas Light Company, Ltd., 14, Palmer Street, Westminster.

**CHARLES H. GREENWALL.**—Duly received, shall be judged, and short criticism sent you next week.

**A. H. CLINCH.**—All dates have been filled up weeks ago, see our leader.

**JOHN H. MONTAGUE.**—A "Public Schools" Competition will be arranged, and entry forms prepared ready for competitors directly after the holidays, prints to be sent in by Easter.

**ERNEST GOODMAN.**—Cannot give you his address, write Mr. A. R. Dresser, Springfield, Bexley.

**G. BEJEMANN.**—Have selected the Matt surface. Shall give a note about the camera.

**DR. J. HASWELL.**—Received safely, will write later.

**CHAS. E. COOPER.**—Glad to fall in with your suggestions.

**J. TAYLOR.**—We are delighted to find that the Society turned up so well.

**A. BROOKER.**—Lantern slides all right! A good suggestion, will think it out. We shall probably have an exhibition in the early spring, but cannot definitely settle at present.

**WEYMOUTH.**—(1) Really cannot say, they are often advertised in "Sale and Exchange Columns." (2) Yes. Mr. V. Blanchard in his articles upon "Stereoscopic Photography," describes how to convert an ordinary half-plate camera.

**J. R. RODHOUSE.**—The print looks as though the negative was over-exposed; it may be the paper is at fault. Send us a print upon gelatino-chloride paper.

**J. W. EVANS.**—Thanks for specimen certificate; it is certainly very neat.

**W. B. H.**—The invention of a disordered mind; really only a take-off, and not to be found in any dictionary of chemistry.

**CLAREMONT.**—Had there been any call for such a business it would have long since been started.

**H.**—Look up the back numbers of your Reporter, and you will find plenty of papers which will help you prepare an evening for members of a mutual improvement class. Certainly give them a demonstration; expose and develop a bromide-print or lantern-slide. Unless you are used to the flash-light, or know something about it, you will not flatter your audience. See that you have tissue-paper screen in front of your lamps, or ground-glass, or, if your lamp is very powerful, of glass. This is done, of course, to diffuse the light. Really cannot help you with quotation.

**MISS M. McCALLUM.**—(1) The print is a great deal too dark; otherwise good. (2) This is better; you might well have cut out some of the stones on left. (3) You have got too many white dresses on

the right; some of the darker ones on the left might well have been put in amongst them. (4) A great deal too dark again; otherwise good. By all means enter for our competitions. We have many worse than yours. There is no club near you. Write us a note on the subject for "Correspondence" columns. What is your difficulty in mounting? Write us further. A burnisher would help you certainly.

**NO NAME.**—Erythrosin is a derivative of fluorescein, and is actually tetraiodofluorescein of potassium,  $C_{20}H_6(OH)_2(OR)_2$ . (2) Try Gotz, 19, Buckingham Street, Strand, or any leading house for photographic chemicals. (3) About 3s. per oz. (4) Primuline is a condensed derivative of dehydrothiocolindine. The exact chemical formula is not known; but its chief constituent is stated to be  $C_{20}H_6(OH)_2(SNOC_2H_4)_2(SNOC_2H_4)_2(SO_2Na)(NH_2)$ . You will find full particulars of this dye in the "Journal of Chemical Society," 1889, p. 227.

**H. MARSHALL.**—If your lens will not work better than you say, there certainly are better ones in the market. Are you sure you have made no mistake? Set up a newspaper absolutely flat, and focus and expose full aperture, and then, without refocusing, insert  $f/15$  and expose, and send us prints, or else send us some prints in which the faults exist you complain of; also a stamped addressed envelope, when we will write you privately.

**R. W. SHARLAND.**—Your wish is realised. See "Our Views" this week. If your light was anything like ours here on Friday, which is most probable, we should have thought 18 or 20 sec. nearer the mark.

**WM. H. BAILEY.**—We incline to No. 4, then 3, and have never taken to any variety of 1 and 2. The fault is, most likely, too short a chimney, and consequent want of draught, and perhaps want of ventilation in the room. Try increasing the length of your chimney by a foot.

**NIKLE.**—(1) You can take portraits, but bust and half-length only. A cheap French portrait quarter-plate lens of  $\frac{1}{4}$  in. focus would suit you. (2) No; the lens works too slow. For a single lens the aperture should not be smaller than  $f/8$  or  $f/10$ . (3) We do not know what aperture lens works at, but from 10 to 20 sec. might be right. (4) Certainly; it is the lens for an amateur.

## Stereoscopic Slide Competition, 1890.

(FOURTH YEAR.)

### CLASS I.

(Slides made for viewing in the ordinary stereoscope.)

1. Mayne, Thos. ....	Liverpool
2. Naunton, W. W. ....	Shrewsbury
3. Milburn, W. ....	Sunderland
4. Ridgway, H. G. ....	Sunderland
5. Finlinton, E. ....	Halifax
6. Ellam, J. E. ....	Yarm
7. Halstead, W. ....	Bradford
8. Schofield, W. ....	Oldham
9. Charlesworth, W. H. ....	Huddersfield
10. Shadbolt, Cecil V. ....	Chislehurst
11. Crespigny, Capt. de ....	London
12. Brerley, H. G. ....	Huddersfield
13. Ferguson, Thos. ....	Kilmarnock
14. Brown, Wm. ....	Holmfirth
15. Stanistreet, A. F. ....	Liverpool
16. Walton, John A. ....	Southport
17. Kindermann, H. ....	Kensington
18. Marshall, R. S. ....	Devonport
19. Melhuish, T. D. D. ....	Vienna
20. Horncastle, Henry ....	Chobham
21. Dickson, H. ....	Brixton
22. *Hepworth, S. C. ....	Dewsbury
23. *Naylor, Ohas. ....	Batley
24. *Mitchell, S. ....	Dewsbury
25. *Taylor, James ....	Dewsbury
26. Hamilton, Alex. ....	Ashton-under-Lyne

### CLASS II.

(Slides which cannot be viewed in the ordinary stereoscope.)

27. Lamb, Capt. Thos. ....	Jersey
28. Hemmons, W. J. ....	Clifton

### SPECIAL CLASS.

(For members of the Dewsbury Amateur Photographic Society.)

Hepworth, S. C.—Naylor, Chas.—Mitchell, S.—Taylor, James—Taylor, R. H. B.—Beaumont, T. G.—Kilburn, Geo.—(Seven competitors sending five slides each in competition for special prizes, silver and bronze medals.)

\*These competitors have also entered five slides in the special competition for members of the Dewsbury Amateur Photographic Society.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. **Halfpenny Stamps preferred.** A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the SELLER to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C. *free of charge.* The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send report a *within TWO DAYS* of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Sale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

"Amateur Photographer," 1889, clean, perfect, for highest cash offer.—10, Albion Street, Miles Platting, Manchester.

AMATEUR PHOTOGRAPHER, Sept. 2nd, 1887, to present date, unbound, perfect, containing whole of Wall's "Dictionary of Photography;" what cash offers?—Rev. H. Sibthorp, Ambleside.

"Amateur Photographer," etc.—AMATEUR PHOTOGRAPHER, October, 1886, to date, 25s.; "Photographic Quarterly," from commencement, 6s.; "Sun Artists," No. 5, 3s. 6d.—H. Fardell, 8, Sussex Place, London, W.

**Banjo.**—Banjo, five strings, splendidly fitted tone and fittings, ivory keys, inlaid handle, perfect hoop, and in grand condition, in leather case, suit lady or gentleman; cost £5 10s.; price 55s.; approval.—Tranter, 336, Wandsworth Road, S.W.

**Burnisher, etc.**—Superior cabinet burnisher, silver-plated bar, lamp, solutions, etc., in travelling case; 12s. 6d.—Jones, 2, Isis Street, Oxford.

**Camera, etc.**—Half-plate camera, dark-slide, mahogany stand, leather case, photometer, good as new; 25s.—2, College Street, Northfleet.

**Cameras, Lenses, etc.**—Shew's quarter-plate Eclipse camera, instantaneous or exposure lens, complete with five double slides, and view-finder, in good condition; price 50s.; cost 120s.—M. Portal, Round Oak, Newbury.

**Underwood's quarter-plate Instanto camera, dark-slide, tripod, and instantaneous lens, as new; bargain, 31s.—J. Slade, Slad Road, Stroud, Glos.**

**Lancaster's whole-plate camera and lens (single), also whole-plate wide-angle Rectigraph lens (iris diaphragms) and half-plate rapid rectilinear lens, cabinet burnisher, all as good as new; £4 10s. the lot.—James Robinson, Marston, Bedford.**

**Conjuring Tricks, large quantity for sale, bargains.—Address, Magic, care of Mr. Ward, 34, Thornhill Road, Barnsbury, London, N.**

**Dark Slides, etc.**—Three Tylar's whole-plate metal dark-slides and screen. Wanted, quarter-plate R.R. lens.—Knight, Seaford, Sussex.

**Hand-Cameras, etc.**—Stirn's detective Vest camera, large size, cost 32s., cash 20s.; 5 in. double condensers, in brass cells, 18s. Griffiths' Guinea detective camera wanted.—B. Mansell, 24, Bilston Street, Wolverhampton.

**Lantern Slides.**—12 lantern slides, 1888, "Irish Evictions," 10s. 6d.; also 50, including landscapes, seascapes, interiors, and animals, 25s.; all plain photographs.—Sparham Camp, 43, Plassey Street, Penarth.

**Lenses.**—Quarter-plate Euryscopes, 25s.; half-plate ditto, 55s.; both working at  $f/6$ , with stops, as new.—H. Rowe, Wallbridge, Stroud.

**Whole-plate single landscape lens, iris diaphragm; 18s.—Walford, 30, Nutfield Road, East Dulwich.**

**Rapid rectilinear lens, half-plate, fine definition, suitable for views, portraits, etc., moveable hood, Waterhouse stops, very finest order; approval; 30s.—Thurlow, 23, Gotha Street, Victoria Park, E.**



Dallmeyer's half-plate triplet lens, very good condition, 50s, very cheap; portrait lens, half-plate, 20s., worth double. — H. Cooke, 3, Weekday Cross, Nottingham.

Ross' No. 3 c.d.v. portrait lens, focus 6 in., good condition; price £4 5s. — N. Abbotsfield, Manna-mead, Plymouth.

10 by 5 Optimus R.R. lens; £4; approval.—Cuthbertson, jun., Church Street, West Hartlepool.

Ross'  $7\frac{1}{2}$  by  $4\frac{1}{2}$  R.S., 75s., cost 105s.; pair of small portrait lenses,  $2\frac{1}{2}$  in. focus, very rapid, about f/3, 7s. 6d. the two (minus flanges).—Photographer, Hill Side View, Old Park, Bristol.

Landscape lens (Squire), 18 in. focus, covers 12 by 10, good condition; exchange for good quarter rectilinear or Buryscope.—Smith, 393, Alfreton Road, Nottingham.

Platinum Ring for sale, weighs  $\frac{3}{4}$  oz. avoidupois what offers?—Address, Sharland, 73, Santos Road, Wandsworth, London, S.W.

Roll-Holder, etc.—Exchange roll-holder, changing tent, Newman's shutter, Shew's detective case, and sundries, for landscape negatives, cash, or photographic apparatus.—Pratt, 27, Regent Street, Nottingham.

Set.—Lancaster's 1890 half-plate Instantograph, warranted finest order, Instantograph lens and shutter, Iris diaphragms, slide, carrier, stand, changing bag, and leather case; 73s.—Chas. Farrant, 243, Milkwood Road, Herne Hill.

### WANTED.

Camera and Lens.—Half-plate camera and lens. —J. Fox Pollard, Cross Bank, Batley.

Clock Works.—Old chiming clock works.—State price to Millett, Niton, I.W.

Condenser.—A  $5\frac{1}{2}$  in. compound condenser, mounted, good condition; state price.—A. D., Fern Bank, Grove Road, Wrexham.

Kodak.—No. 3 or 4 Junior, in perfect condition, cheap.—S. Elliott, Ford House, Exeter.

Lenses.—Quarter-plate R.R.; exchange whole-plate slides or whole-plate landscape lens.—Knight, Seaford, Sussex.

Rapid rectilinear lens, 12 by 10, cheap for cash, any good maker, Optimus preferred.—2, Palin Street, Nottingham.

A recent quarter-plate Instantograph, complete, in good condition.—State lowest price to Photo, 35, Warwick Street, Brighton.

Roll-Holder.—Eastman's half-plate roll-holder; exchange 7-stringed metal-rim banjo, tuner, book and case, cost over £2.—B. Mansell, 24, Bilston Street, Wolverhampton.

Set.—Half-plate set; approval.—R. Perigo, 52, Prince Albert Street, Oldham.

Sundries.—Quantity superior studio and portable sundries, lenses, camera, cases, burnishers, pneumatic shutters.—A. D. Clarke, Pallion, Rugby.

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## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

UNITED KINGDOM .....	Six Months, 5s. 6d.....	Twelve Months, 10s. 10d.
POSTAL UNION .....	" 6s. 6d.....	" 13s. 0d.
INDIA, CHINA, ETC. ....	" 7s. 9d.....	" 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS OF THE *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP), for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 20.—PORTRAITURE and FIGURE STUDY ... Jan. 1.  
 ,, 21.—ANIMALS and INSTANTANEOUS SUBJECTS ... Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM*: *PHOT*:

All photographs for any of the above competitions will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## SPECIAL COMPETITION,

ILLUSTRATING THE

## "SEVEN AGES OF MAN,"

As described in Shakespeare's Play "AS YOU LIKE IT" (Act II, Scene VII.)

FIRST PRIZE ..	GOLD MEDAL.
SECOND ..	SILVER MEDAL.
THIRD ..	BRONZE MEDAL.
FOURTH ..	CERTIFICATE.

**CONDITIONS:**—That the Photographs shall be from life, in the costumes and with the surroundings of ordinary daily life. Photographs in which the subjects have been "got up" will be rejected.

The prints may be by any process. The prize photographs will become the property of the Proprietors of the *AMATEUR PHOTOGRAPHER*, who will have the right to call for the use of the negatives.

All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play, neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man,"

EDITOR:—*AMATEUR PHOTOGRAPHER*,

1, Creed Lane, London, E.C.

ELLIOTT & SONS, "BARNET" PLATE,

PARK ROAD, BARNET.



# The AMATEUR PHOTOGRAPHER

Telephone N<sup>o</sup> 1645  
Telegraphic Address: VINEY, LONDON

Offices: 1, Gress Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 323.]

FRIDAY, DECEMBER 12, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—*Shakespeare.*

THE photographs contributed to the Monthly Competition No. 19, "Seascape and River Scenery," are almost as numerous as those received last month, and are of very fair average quality. The prizes are awarded to:—

*First Prize (Silver Medal)*—JOHN NAYLOR (Charlesden).

This competitor sends a charming print from a 12 by 10 negative, "Sunshine and Shadow." The picture took the first prize in the Landscape Class at Tunbridge Wells, and those who see it as the frontispiece to the January number of the *Photographic Reporter* will, we are sure, acknowledge that Mr. Naylor distinctly deserves the honours that have been awarded him.

*Second Prize (Bronze Medal)*—FRANCIS G. SMART (Tunbridge Wells).

The photograph contributed is an admirable study of "Fishing Boats Entering Whitby Harbour," taken with a Ross whole-plate lens, *f*/16, and a Kershaw's-shutter exposure of a "Castle" plate. The view was taken with the sun in front of the camera, and, as a consequence, detail in the shadows is lost; still, the picture is a good composition, and also received recognition at Tunbridge Wells.

Surgeon-General A. G. E. Newland (Burma) sends a very charming view of a "Creek off the Irrawaddy," which was taken with a Dallmeyer's R.R. lens on an Ilford rapid plate. The print is on Talbot's "Beta" paper. The selection of point of view is all that can be desired. Mr. H. L. Hawksley (Southport) has a good picture in "Conway River;" the balance is well preserved, and the print, matt-surface silver, lends itself to the scene. Mr. Charles E. Cowper (Sunderland) has been very successful in securing an admirable photograph of a "Stormy Day at the Stag Rocks," with waves breaking over the rocks. He used a Thomas's extra-rapid plate, the print being on Obernetter paper. Mr. John W. Eadie (Airdrie) has sent in a well-chosen view on "Lock Etive." Mr. Gilbert R. Betjemann contributes a view on "Oulton Broad," Norfolk, which is a good study with natural clouds. Mr. Betjemann tells us that this photograph was taken with Messrs. Adams and Co.'s "Ideal" camera; the result shows that very excellent work can be done with that camera. Mr. Algernon Brooker (Hastings) has entered in the Competition, and contributes "A Haven of Rest," which was taken with a Ross P.S., *f*/16, and a slow shutter exposure of a Paget xxxxx plate. The print is on Whatman's paper, sized with arrowroot, and silver solution applied with camels'-hair brush, "toned with acetate soda, chloride of lime, and gold."

A large number of the photographs are of high merit,

and show that the AMATEUR PHOTOGRAPHER Competitions are losing none of their popularity, and that they are much appreciated in all parts of the world.

WE regret that last week, by an oversight, the fourth prize in Class III. of the AMATEUR PHOTOGRAPHER Lantern Slide Competition (Animals and Instantaneous) was announced as being awarded to A. D. Dixon, Leith; the name should have been A. D. Guthrie, Leith.

WE are pleased to notice that our hint as to the collections for the Daguerre Tomb Fund is being adopted by the Societies. It will be noticed that the Lewisham High Road Camera Club proposes to follow the good example of Mr. Biden by sending round the collection box on the next lantern meeting.

THE Photographic Society of Japan is progressing, and at the meeting on October 11th there were shown some fine flower studies (Kajima Sebi), some views of the ss. *Omaha*, taken from a yacht in motion (C. D. West), copper-plate and photo-engravings (S. Dyama), and prints by Professor Burton. There was also shown the apparatus with which some of the professors of the Tokio University had tried deep-sea photography. These exhibits show that there is considerable go in our Japanese fellow-workers, and we heartily congratulate them on the success they have achieved.

MR. ERNEST HOWDEN, of the Western College, Harrogate, writes us to the effect that there are still a few vacancies in the list of "Light and Company," a postal portfolio photographic club, the rules of which provide that—A portfolio be issued every month, to which each member is entitled to contribute not more than one whole-plate print or two prints of any size smaller, unmounted, full details of the work being given on the Society's special slip. Each portfolio to be forwarded per parcel post to the next member on the list not later than the second day after its receipt. The work in three months of the year to be devoted to special subjects selected annually by the members. Portraits not admitted to the open subjects, studies of children and genre work excepted. A prize of four of the best photographs in the portfolio to be given each month for the best subject, to be decided by vote; the remainder to be divided amongst those contributing greatest number of prints during the



year (whole-plate prints 'to count as two). No member to vote for his own work or take more than two prizes in one year. In applying for election, amateurs should forward to the Hon. Secretary samples of their work, and a stamped addressed envelope for reply.



We have been asked to notify that Messrs. Cocanari, of Rome, have just opened, at 107, Via in Aquiro, a large photographic store, with *six* dark-rooms properly fitted up for the use of amateur photographers visiting the city of Rome. The firm stock all makes of plates, and will be pleased to receive visits from English amateurs.



ANOTHER letter reaches us from Switzerland advising us that a dark-room has been fitted up at the Hotel des Bains, Montreux, Lake Geneva. Our correspondent informs us that "Territet, or rather Montreux, is a splendid centre for photographic excursions, as it is situated in the middle of about eight or nine small towns, surrounded by the most magnificent scenery."



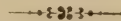
It will be remembered that last year, through the liberality of many of our readers, we were able to make gifts of apparatus, etc., to deserving professional photographers. We have received four beautiful pictures from the recipients—two ladies—of Col. Malden's handsome gift of a portrait lens. Two of the photographs have been accepted for publication by a leading firm of publishers, and are most excellent examples of photography. The ladies are now established as photographers at Avignon, France, and write us:—"Thanks to Col. Malden's lens, we are able to produce good work for portraiture. We are working under great difficulties, as our studio is an *open* terrace, exposed to wind and rain, with sloping floor. . . . If you can interest the kind amateurs through your paper in our favour, any help will be acceptable. We have no burnisher, no studio camera or stand, and only a rough, home-made background." We are sure that we shall not appeal in vain for these ladies, and it will afford us much pleasure to send out any apparatus sent to us. The photographs are now on view, and those who wish to, may see what good work has been done, notwithstanding the many drawbacks mentioned in the letter from which we have quoted.



We would call attention to the next "big thing" in competitions, "Holidays with the Camera," particulars of which will be found in our advertising columns. All photographs must be received on or before the 31st inst. It will assist our work very materially if intending competitors will send their photographs to us as early as possible.

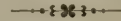


THE awards in connection with the AMATEUR PHOTOGRAPHER Stereoscopic Slide Competition will be published next week.

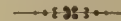


WE understand that the Camera Club will locate themselves in their new premises in Charing Cross Road immediately after Christmas, and, although the whole of the Club premises will not then be ready for occupation, the comfort of members will be well looked after by the executive. It may not be out of place to mention that intending members should send up their names before the end of the year if they wish to benefit by entering at the present low entrance fee and rate of subscription. The Club, as established at Bedford Street, received much eulogy in these columns, but it is not too much to say the executive never,

in their wildest dreams, could have thought that their bantling would have such a house to live in, and such a family as through their energy and perseverance, the Committee of the Club have around them. Nothing, we are sure, will be wanting in the new club-house to make it a most perfect "home" for workers in photography.



WE drew attention last week to the dinner to be held on the 8th inst., to commemorate the twenty-fifth anniversary of the formation of the Solar Club. The "Chancellor," Mr. W. England, honoured us with an invitation to meet the "Rays," or, as the book of constitution calls them, "Gentlemen in *Lux* way," and a right merry time we had. Professor Glaisher, F.R.S., etc., acted as President, or, as the "Rays" quaintly called him, the "Lord Uriel, Regent of the Sun." The club was formed twenty-five years ago, in order that the members, "gentlemen interested in photography or other branches of the fine arts," should meet for "social enjoyment." The guests were numerous, and representative of photography, professional, commercial, and amateur. Mr. Robert Slingsby (Lincoln) took a flash-light photograph of the company, to which we shall probably refer in next week's issue. Some good speeches were made. The photographic Press were represented by the *Photographic News* (Harrison), and the AMATEUR PHOTOGRAPHER (Hastings). The gifted editor of the *Detroit Free Press*, Mr. Barr, was also present and made a humorous speech, in which he commented upon the work that should be done by the Solar Club in their collective and individual capacity.



WE hope to announce our programme for 1891 in full after Christmas or so. It will interest our readers to know that Mr. Clement J. Leaper has consented to write for us a series of articles on the "Construction and Use of Photographic Lenses;" the Rev. T. Perkins, M.A., will contribute a short series on "Photographic Work for the Winter Months;" and Mr. Andrew Pringle an exhaustive treatise on "Photo-micrography." These will be most instructive, and we are much indebted to Mr. Pringle for his kind offer to answer any questions upon photo-micrography that may be asked of him by subscribers. We shall also publish articles upon "Composition and Light and Shade," selected and arranged for the use of photographers from Burnet's Essays, with introduction and notes by Mr. H. P. Robinson. These articles will be illustrated with reproductions of many of the examples which embellish the original work by Burnet. Few of our readers have had an opportunity of even seeing a copy of Burnet's Essays. The book has long been out of print, and although the enterprise of Dr. Wilson, of New York, reproduced the work, type and pictures, by photography, the price at which it was published is prohibitive. The study of the chapters that will be published by us, with the guiding hand of so well-known and able a worker as Mr. H. P. Robinson for a pilot, will, we are sure, be much appreciated by many thousands of our subscribers. Another series of articles we hope to be able to announce will be upon "Pictures by the Old and Modern Painters, with Examples of their Work as aids to composition, lighting, etc." The examples given will be of well-known pictures that may be seen in the National Gallery or in the galleries of the South Kensington Museum. It will be seen that we intend to relax no effort to maintain the high position that the AMATEUR PHOTOGRAPHER holds. Many minor matters will be noted in our programme for 1891. We shall make special arrangements for expert advice through the editorial columns, by letter, and by interview. In doing this we are, of course, serving our own interests as well as our



subscribers, and we trust they will help us by recommending the AMATEUR PHOTOGRAPHER to their friends.



It soon becomes evident to any person who takes any deep interest in matters photographic or in amateur photographers, and the work they produce, that any concentration of energy on particular branches of the art is comparatively rare. Now this fact is to be deplored, for it may safely be asserted as a truism that no very high standard can be attained or maintained by any worker with the camera who employs the instrument in the same manner as a small boy does a toy gun, that is to say, fires it away at anything and everything that comes across his path, or can be discovered when on the prowl. The fallacy inculcating the doctrine that a man who is capable of taking a successful photograph of one object can do so of all other objects, is one, apparently, which has gained an extensive circulation among amateur photographers in Great Britain, if the photographs which are sent in to the various exhibitions and competitions can be taken as having any representative value whatever. Now such an idea as this is doing a great deal of harm to what may be called the English school of photography. A moment's consideration, if it is given to the matter, must surely convince any one interested in the subject, that photography can be no exception to certain rules which are applicable to every industry and sport in which men interest themselves, and most decidedly not to the one that recognises the necessity for concentration of energy and intelligence on special branches when anything approaching perfection is desired; and surely when the beauty and absorbing interest, from some point or another, with which a true artist with the camera can endow his work are properly appreciated, no photographer would willingly remain satisfied with a lower standard than the highest one his capacity will permit. Certainly a photograph should be a good one in every way to justify its existence in any public place, for it is only when photography is at its very best, that the sneers and gibes with which it has been pelted by the art world can be pronounced inapplicable. To anyone who can correctly appreciate the value of a beautiful picture, let the process by which it was produced be what it may, it is a painful sight to see work in which there is evidence that all the elements existed for the creation of a thing of beauty but one, the requisite knowledge which this particular branch of the art imperatively called for. A striking lesson can be learnt by comparing the photographs which are produced by what may be called the helter-skelter workers, who take one class one day and another the next, "to one thing constant never," with the pictures that are the outcome of the loving labour of those men who remain true to one or two particular lines, and devote their energies to mastering their intricacies and subtle requirements. Employing the same appliances under the same circumstances, these past masters of the art can so stamp their work with individuality as to defy competition or absolute imitation. A few amateurs have made a name for themselves by devoting their attention and study to landscape work pure and simple; a slightly larger number have done the same thing with architecture and interiors; others have preferred subjects in which human figures under various circumstances are prominent, and a limited section of the photographic fraternity have confined their energies to the portrayal of animals, which perhaps is as difficult a branch of the art as any that can be selected, when all the requirements are taken into consideration. The advantages that accrue from this careful limitation of energy and study become manifest directly one of these specialists departs widely from his own realm and wanders into one in a totally opposite direction, and the work done under these circum-

stances is compared with that more in harmony with his inclination. The technique may be identical, but in everything else that can characterise a photograph there exists all the difference between excellence on the one hand, and mediocrity or commonplaceness on the other. The secret of his success by making such a comparison is established beyond a doubt. In some cases it can also readily be traced year by year in the marked improvement which results from the selection of one branch of the art and paying loving attention to it alone. It is evident that the heart must be wooed as you wooed the maiden of your choice, by constancy and devotion.

Of course, considerations such as those we are now advancing are only of value to photographers of either sex who possess the requisite ambition acting as an incentive urging them on to the mastery of their art, and it is this class that should recognise the necessity of allowing their taste to make a selection, and then narrowing their work in accordance with its requirements. A number of competitions in the various methods of printing, in enlarging, in the production of lantern slides, or the creation of artistic photographs have been held from time to time by this and other journals devoted to the interest of the art-science, and it is in the examination of such work, when numerous examples from each competitor are available for comparison, that the results arising from the non-appreciation of the advantages of concentration become painfully in evidence. One or two photographs in a set will often be nearly perfect in their way, and the remainder so inferior that it becomes a matter of wonder whether the work is *bona-fide* that of one and the same person, and how any one capable of making such exquisite photographic pictures should at the same time be capable of sending in for competition side by side such miserable stuff as that composed in the balance. It frequently happens when sets have to be adjudicated upon, that the best pictures individually in the whole collection are not among any of the sets that take prizes, but among those which in the scale of average excellence are very far down the list indeed.

We do not think we can serve those of our readers to whom our remarks can apply in a better manner than by drawing their attention to this general failing, and its effects on their work. It so lowers the standard of English photography that some Continental countries in which the artistic faculties are apparently more cultivated than they are here, and who fully appreciate the influence sticking to one line can exert, excel us in quality although not in quantity. Now, there is no part of the world so favourable to the creation of good work with the camera as England. The compact beauty of its landscapes, the low sky, the misty atmosphere, the varying gradation in the intensity of the light are all factors of which we can avail ourselves in picture-making, with an advantage over our Continental brethren. But by neglecting to cultivate the skill in the proper treatment of such accessories which can only be done by a concentration of study and energy to the subject, we allow those who start in the race with disadvantage to come in first at the winning post. We hope the near future will give us a much longer list of "specialists" than can now be named, for in such an event the general standard of English photography will, we feel convinced, be considerably enhanced.



THANKS to the vagaries of what is called the English climate, the snow has disappeared, and with it all chance of snow pictures, but still there is a probability of its return, and in continuation of our notes of last week we may consider the development of plates exposed on such subjects. As in exposure our idea has been the reduction of contrast, so in development the same idea must, therefore, be kept



in view. The accepted method is to begin development with a minimum of pyro or reducing agent, and when all detail is obtained, to increase density by a further addition of pyro and bromide. Thus, let us take a half-plate which has been exposed for a full time, as we have suggested, on a typical snow scene, with dark trees in the foreground, and plenty of snow. We will also suppose that we are using ten per cent. solutions of pyro, bromide, and ammonia. We measure out then one-tenth of a grain of pyro, 5 grains of bromide, and 3 minims of ammonia (=30 m. 10 per cent. sol.) This is diluted with distilled water and applied to the plate. The dish is then gently rocked, and development allowed to proceed for about five minutes. If the plate be now examined by transmitted light, a very faint image may perhaps be seen, and another one-tenth of a grain of pyro is poured out, the developer mixed with it, and this again applied to the plate for another five minutes. At the end of of this time full detail should be visible, but the whole will be very faint, flat, and poor-looking. Now 1 grain of pyro and 5 grains more bromide are added to the developer, and the solution poured over the plate, when density should gradually increase, but increase proportionately, and development continued for five minutes longer. If at the conclusion of this time full density is not obtained, the developer is thrown away, the plate well washed, and a developer compounded on the lines of Mr. B. J. Edwards' re-developer applied. For those who do not know this, the following is the formula:—

No. I.				
Pyrogallol	..	..	..	4 grammes
Citrate of ammonia	..	..	..	1.5 "
Or citric acid	..	..	..	1 gramme
Distilled water	..	..	..	100 cc.
No. II.				
Ammonia (.880) ..	..	..	..	6 cc.
Ammonium bromide	..	..	..	12 grammes
Distilled water	..	..	..	100 cc.

For use, mix in equal parts.

Or using the 10 per cent. solution we measure out 2 grains of pyro, 4 grains of bromide, and 3 minims of ammonia (=30 m. 10 per cent. sol.), add 1½ oz. of distilled water, and apply to the plate; in a few minutes full density will be obtained. We have never used hydroquinone for this work, but have tried Mr. Chapman's combined quinol cum eikongen developer with excellent results.

No matter what the reducing agent may be, the above method of developing should be adopted, and the resulting negative should be one full of detail, with here and there—and this only perhaps in one or two places at the most—bare glass giving good gradation up to absolute black. Withal, however, the negative should be of thin, delicate character rather than the strong intense kind. If the method of exposure and development we have suggested be faithfully but carefully and intelligently carried out, prints will be obtained in which there will be exquisite detail both in the snow and dark masses, and above all with snow whiter than the sky, for this last is, in our opinion, an important artistic and naturalistic, or perhaps, we should say, natural or true-to-nature effect, for we are quite sure not one of our readers has ever seen a winter sky whiter than snow, though in a blue winter sky we may find clouds as white as snow, though too often the sky is a grey leaden pall. The mention of clouds reminds us to advise our readers, when they see a fine snow sky which is of a peculiar character, not to fail to secure it by utilising a special plate, preferably colour sensitive, with a yellow screen. We shall shortly hope to jot down a few ideas on the most suitable printing process for snow pictures.

## Negatives and Positives.

TRULY these are "parlous" times, when any man we meet may be armed with a camera, snugly hidden behind his *vest*, his *necktie*, or tucked under his arm as in *book form*. Can it be true that we are not yet happy, and that inventors ("parlous knaves, forsooth") are desired to exercise their cunning, so that we may have the tall-hat camera, the collar-stud flash-light camera, the eye-glass invisible camera, the cigarette camera, etc.? Nor are the ladies ever forgotten? The bonnet, hat, and parasol camera are things of the past. The ear-ring camera is "nearly ready." But there lurks yet one more deadly form. It is designed so as to occupy the "canny" recess of a hollow tooth. A bitter irony in that word hollow, for, mark you, the shutter will be "actuated" by the dimpling smile of Arabella's (pearl-powder'd) cheek. And let the "eligible young man" beware of falsely raising up that smile! It will "take" him. Once more, Adolphus, beware!!

'ARRY 'AWKINS wants to know if oleographs are taken with a pin-ole. He supposes that collotypes are the types Mr. Colls uses to print his pictures with.

A GREAT deal of misdirected energy has been spent in fashioning engines to render the surface of photographs not only smooth but as glossy as possible. These terrible instruments are, by a figure of speech, termed burnishers. Now, if any one of inventive turn of mind wishes to benefit the artistic part of the community in general, and his own pocket in particular, let him "reverse the engine," metaphorically speaking, and give us an apparatus of the roller description which will enable us to add, at will, more or less "grain" to the paper.

WE boldly present this notion in all seriousness to the nation; and go further, saying that all one wants is a "burnisher" fitted with two or three interchangeable bars (rollers) of various degrees of "grain." Then, instead of any heating, etc., all one need do would be to simply pass the print, wet from mounting, through the two rollers, and then patiently wait until the impressed grain dried.

It is gratifying to notice that the current number of the *Art Journal* contains a reproduction of Mr. Alfieri's picture of Mont St. Michel (Normandy), which was issued as a frontispiece with the *Photographic Quarterly* for October.

It certainly is curious, to say the least of it, that among all the talk we hear about naturalism, idealism, impressionism, etc. (dogmatism and rheumatism are not included, as we know all about those two), we seldom or ever hear anything about them that is positive, or distinct—anything "get-hold-of-able." The sort of thing we usually do hear is, that naturalism is opposed to some other 'ism, idealism does not include the other 'ism, and so on.

WE once heard classical music defined as "a tune that no fellow can whistle." It would seem that several of these 'isms are the classical music of art. In fact, they are what "no fellow can see."

THERE is, however, one point upon which several of these 'isms agree (more or less), viz., in the part that imagination is called upon to play; so that—unless reaction sets in mean-



while—we may expect to find on the walls of the Pall Mall (about 1900 A.D.) something of the following kind:—

"No. 9. Idyll of the Sea." (This will consist of simply one line to *suggest* the horizon. The sea, sky, cloud, waves, shipping, etc., are to be imagined.)

"No. 99. Portrait Study, idealised." (This will be simply a blank piece of paper. Everyone can fancy his own portrait as *the* portrait of the year.)

"No. 999. Study in Tone." (Frame containing simply a blank mount, the plate mark and *other impressions* to be supplied by spectators.)

## Letters to the Editor.

### HONORARY MEMBERSHIP OF SOCIETIES.

SIR,—Referring to your note in the AMATEUR PHOTOGRAPHER for the 28th ult., as to the courtesy of the Great Yarmouth and Eastern Counties Photographic Society, I have much pleasure in stating that, as Secretary of the Camberwell Camera Club, I have received from Mr. Harvey-George (Secretary of the Great Yarmouth and Eastern Counties Photographic Society) a ticket constituting me an honorary member of that society for the ensuing twelve months.—Yours truly, FRANCIS H. ATKINS.  
71, Paulet Road, S.E.

\* \* \* \*

### ENLARGEMENTS FROM NEGATIVES TAKEN IN HAND-CAMERA.

SIR,—Your remarks about me, *re* the Tunbridge Wells Photographic Exhibition, draw attention to a matter I should like to see settled. You say, "Mr. A. R. Dresser, who entered, etc., could not expect to secure a prize with enlargements from hand-camera work." That is so, but then I had a try, and now comes the point I wish to draw attention to and get settled. I think it is well known I exhibit, not for the gaining of prizes (when I get them I take them with thanks; if not, I bow with pleasure to better work), but to illustrate my great hobby of hand-camera work; and when I hear the public say the pictures are fair, I am content, as I only wish to show it is possible to get as good, or nearly so, by the use of a small camera as with a large one. You then say, "We should disqualify all enlargements." Why so? If one is able to go out on his travels and procure quarter-plate negatives, that he can enlarge so as to be good enough to enter, why should he be disqualified, as he is the one who is at a disadvantage, not the others who work direct? I must say I think it very hard such should be the case, as it keeps out all who travel only with hand-cameras when abroad from exhibiting their work, and I for one cannot agree with you. I never grumble as to what is done, but I now should like this matter thrashed out, viz.—When an exhibition is coming on, and the form says "Class for landscape or genre, any size, prizes, etc., so and so," what right has the judge to say, "You cannot enter an enlargement if you wish to do so"? *There is no rule* in their form sent out *against it*, and I say they have no right to disqualify one for so doing. I have entered, in numbers of competitions during the last few years, enlargements from hand-camera negatives (and often gained awards), and have never yet been disqualified, except by you in your Travelling Studentship Competition. I said nothing about it at the time, but you certainly had *no right* to do it, as you have *no rule* against it, and in future if enlargements are not to be eligible it should be stated.

I have written longer than I intended, but I feel strongly on this point, and say it is not fair to disqualify one from sending in prints enlarged from hand-camera work (*unless it is retouched or worked up*, and then of course). What I understand is wanted is good work to be exhibited at the various exhibitions, and not to say that 8 by 10 or 15 by 12 sizes must be direct.

If I like to contribute work from hand-camera negatives up to those sizes, I am the one who is working at a disadvantage, not the workers direct.

Now please do not think I am complaining as I got no award at Tunbridge Wells. It is not so, as I know myself that the work sent was not nearly so good as Mr. Austin's and many others, but I write (as I have for the last few years) to defend my pet baby, hand-camera work, and not to grumble at awards

which I feel sure are quite fair and just, but to get this one point settled, "Are Enlargements in Open Classes to be Disqualified?"

If it is so, I can seldom show, as I have not taken a picture of 8 by 10 size direct for over twelve months.—Yours truly,  
December 5th, 1890. A. R. DRESSER.

## Photography and the World of Nature.

BY SENEX.

THERE was a healthy, breezy freshness about the paper which Mr. Gale read before the Camera Club on the 6th ult., redolent of the downs and the pines, that was exceedingly stimulating and invigorating. It was more than refreshing to those of us who have to give up so much of our lives worshipping at the shrine of London bricks and mortar, who have to continually rub shoulders with men racing through life with only one aim, men who never—well, hardly ever—think of Nature until the day they have to pay the final debt to her.

The fierce winds and drenching rains which prevailed on the night in question formed a significant accompaniment outside the Bedford Street rooms to Mr. Gale's description of photographing a storm, and bore witness to the enthusiasm that faced and surmounted such difficulties. Enthusiasm without extravagance was, indeed, the keynote which struck continually on the ear as we listened to Mr. Gale's thirty years' experience in the field.

One cannot help wishing that there was more of this eager outlook into the world of nature, and less disposition to narrow the view with noisy prejudices and false judgments barren of results. We need all the vigour and spirit with which we may be endowed to depict the fairy face of nature as it shines upon us; and yet we waste our time and our efforts on the Areopagus of photography "in nothing else but either to tell or to hear some new thing." We mystify our senses by extolling and pursuing some whim or fad coined in the brains of men who have never risen above dull mediocrity in anything they have done, and whose select pattern of excellence would blot out of recognition almost all that has ever been accounted admirable and original in any age of the world's art.

There are some critics who are never satisfied until they are dissatisfied; who are made up of antipathies; who go through the whole range of art fault-finding, out of sympathy, flinging themselves into imaginary breaches to pick a quarrel with first-rate excellence, for no other reason than to have the pleasure of condemning what others delight in. Even their praise sounds like the peevishness of an habitual stomach-ache. They would chop up more than half the National Gallery into firewood, and turn the rest of the pictures to the walls to be looked at occasionally under their supervision. You may count on your ten fingers the names of the only men who have ever painted anything that has pleased them or is worth looking at.

This kind of thing is, of course, mere affectation. It is supposed to proceed from a more refined sensibility for the beauties of art than is allotted to ordinary mortals, whereas it is really nothing more than an uncommon senselessness for those varieties of truth and beauty which are the characteristics of all fine art.

On the whole, then, it is not a bad idea, nor bad advice, to lay aside our prejudices and our airs of superiority, and, as we take our camera on to the downs or amongst the Surrey fox-covers, to let our enthusiasm run away with us a little for the sake of the inspirations it will awaken of gratitude, admiration and delight. To be sure, according



to the very latest intelligence, the eyes that we carry about with us are only a bungling, mechanical contrivance, which might have been very much improved if the Almighty had known what photographers would want them to do. Let us be thankful, however, for small mercies, and prefer to believe that the effect of sight as it now is was foreseen by infinite wisdom, and therefore that it was intentional.

Just to take up this one subject,—how we see things. Let us look at it for a moment. The eye stands between the external world and the world of thought. Trained to see intelligently, it selects, analyses, and compares with patient study from the wide field of nature. Then comes the power of application, perhaps by slow degrees, when the mind can begin effectively to direct the eye to useful and pleasing results; to see truth and beauty; to detect the gradations of colour, shade, shadow, breadth of outline or symmetry of form. To a favoured few is granted the power of being able to achieve at one bound and without effort that which the ordinary mind accomplishes with infinite labour and trouble repeated again and again. This power we call genius.

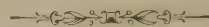
When we find the eye talked about and criticized as if it were a scientific instrument or a microscope and nothing more, we need not be surprised to find that the art it produces is of an extremely dry and uninteresting kind. The effect is that of mere sense without sensibility. But if it is made the medium and interpreter of the sentiments and affections, its range and scope of action will be at once elevated and refined; and the more so the more it is allied with imagination and independent and original thought. Herein lies the difference between the ideal and the formal.

It is no argument to say of a landscape that the view is *in* Nature, emphasize the *in* as you will. We know well enough that nothing ever was or ever will be painted that is not *in* Nature. Even the monstrosities of mythological and legendary imagination are all compounds of well-known natural forms. But the question is, what and how much men differently constituted by intelligence and sympathy with Nature will get *out* of her? When, therefore, Mr. Gale alluded to "those ideal representations which are the perfection of art" he appealed to a quality of the imagination which has always been the peculiar prerogative of the fine arts, and without which their reproduction is mere soulless copying. The true expression of Nature will depend upon the way in which her language is understood. She is there in all her beauty and intelligence, whether in form or in the field, but to the servile imitator she is veiled.

Hence, too, we may account for so many things in art that reconcile us to its diversity, and how it is that when truly inspired it is wholly independent of time and fashion. To hear some of our critics we should have to believe that pictorial art was reduced to a cut-and-dried pattern out of the "book of Nature," irrespective of all sentiment, passion, or dramatic moments. Cut down to this dead level, whatever has been done—the best of its kind in any age or style—is to be disparaged because of some trivial inattention to individual details. It is impossible to lay down a system of art which shall hold good for all ages. Nature herself remains the same, but not so the spirit that woos her. It sometimes glories in her radiant colours, and we have a Titian; sometimes in design, and we have a Raphael or Michael Angelo; sometimes in chiaroscuro, and we have a Rembrandt. Not one of these, perhaps, may have reached perfection, and yet not one of them but has claims to undying admiration. And unless you are prepared to say that the work of one particular style has been the final expression of art, that therein it reached its climax, and that all else shows a feebleness of power and a duller aim, you cannot demand an unconditional surrender of the fame and

greatness of those great masters who have sought perfection where their genius led them.

This, we venture to say, is the catholic spirit in which the study of art should be approached. *Nil admirari* is easily done. But to acknowledge it shows neither artistic perception nor sound judgment.



## The Stereoscope.—XIV.

BY VALENTINE BLANCHARD.

PROBABLY one of the causes which led to the abandonment of the stereoscope was the imperfect character of the instrument introduced by Sir David Brewster, and afterwards so slavishly copied by the various makers for many years. The old box form is so well known that it scarcely needs description here. It must be referred to, however, if only to point out its most serious faults. Of these the greatest was the employment of the box form at all for the purpose. It is easy to imagine why Brewster, in his early experiments, did so. He felt that by enclosing the subject on every side excepting at the lid where the light was admitted, he still further helped out the illusion, for as the inside of his box was painted a dead black, nothing was visible to attract attention but the stereoscopic subject to be looked at. For viewing transparencies, all this was right enough, though really not necessary, as has been found out since; but when the picture had to be viewed by reflected light, the small amount of it admitted through the lid at the top, and the difficulty felt in getting it at all times in the right direction, was an everlasting bother to the unpractised. All those familiar with the earliest instruments only know too well the trouble experienced by many in their attempts to get the light just right for the subject, and how rarely they perfectly succeeded in their efforts. Brewster's method of cutting the lenses in half, and reversing them, and so carrying out Wheatstone's suggestion of prisms, was admirable, and was, indeed, the very foundation of his instrument, for by this method the semi-lenses were of necessity identical in foci, and could not fail to give the proper effect if rightly adjusted; but there was the rub—they very seldom were properly arranged in the early instruments made on the Brewster model. The aperture of the eye-pieces was very small, and they were generally much too near to each other to suit the eyes of most people. I have one of these old instruments before me as I write, and I find the diameter of one of the eye-pieces only three-quarters of an inch. If this instrument had been provided with an easy means of bringing the eye-pieces nearer to each other, or removing them farther apart at will, so as to suit the requirements of the beholder, then the smallness of the diameter of the lenses would not matter so much, but it is not provided with any arrangement whatever, either for separation of lenses, or for adjustment of focus, and therefore the instrument could only suit a very limited number of sights. Many of the expensive instruments made in the latter days of the stereoscopic craze were provided with rack and pinion for focussing purposes, but the amount of range was far too limited; and the majority of the cheap instruments had no arrangement whatever. It naturally followed that a large proportion of those who looked through the stereoscope did not get the proper stereoscopic effect, and after fatiguing the eyes to no purpose were at a loss to understand why some people made so much fuss about the stereoscope.

One of the most serious faults in the early instruments was the placing of the lenses too near each other. The gravity of this fault will be seen if we for one moment



pause to examine the construction of the semi-lenses as first proposed by Brewster. Let us take a lens of five or six inches focus and three inches diameter. If we cut this in half we get two semi-lenses, of one and a half inches diameter. Now, if these are mounted so that the thin edges touch each other, we shall be all right, for the widest eyes can scarcely look beyond the axes of the lenses—in other words, beyond the thick outer edges of the severed lens; but generally these lenses were trimmed up, so that, instead of a diameter of one and a half inches each, they had barely an inch, as has been shown above in the description of the old stereoscope. Now if these be mounted near each other, any one having the eyes wide apart must look beyond the axes of the lenses in question, and in consequence the eyes are strained in their endeavour to make the two pictures coalesce in the stereoscope. Then comes the too well known expression, "The stereoscope would be very well if it did not make the eyes ache so."

Whole lenses answer perfectly for the stereoscope, but the greatest care is necessary in selecting them. Their foci must be absolutely identical in order to make a perfect instrument. The other day I took up at random a pair of single lenses that had been sent up from the country for sale

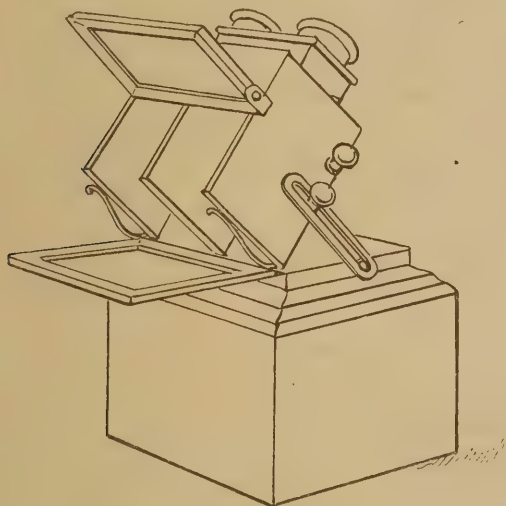


FIG. 13.

or exchange. They were slightly under six inches in focal length. I placed a stereoscopic picture before me, and applied a lens to each eye to look at it. The superiority of achromatic lenses for the stereoscope was at once made manifest. There was a superior clearness of definition, and none of the fringes of colour usually seen at the margins of the picture when ordinary or non-achromatic eye-pieces are employed. On measuring the distance from centre to centre of each lens, it was found to be slightly over three inches. From this it follows that whenever whole lenses are employed their axes must be three inches apart in order to make them available for the purpose. By attention to this rule it will be seen that the single lenses employed in taking the stereoscopic pictures can afterwards be used in the instrument for viewing them. An extra pair of flanges will be necessary—that is all.

I think Messrs. Smith and Beck were the first to regularly make stereoscopes with achromatic whole lenses for eye-pieces. Their achromatic stereoscope was such a great advance in the right direction, and such an immense improvement on the Brewster model, that I cannot do better than give a description of it. It will be seen by an examination of fig. 13 that the instrument is not nearly so much

boxed in as those constructed on the Brewster model. This, to begin with, is a great improvement. The lenses are achromatic, and there is rack and pinion for adjustment of focus. The dividing partition is of ground-glass. The reflector above closes down when transparencies are to be viewed, and the reflector below can be used to reflect light through the transparent pictures, or it can be used in conjunction with the other one when the instrument is open. There is an arrangement for fixing the instrument on the top of its own case, and for elevating it or depressing it at will, so as to suit the requirements of the beholder. Only two objections can be urged against it. The first is the most important for most people—it is an expensive instrument. The second objection is one that could easily be removed. The eye-pieces need a hood to shield the eyes of the beholder from the light. The drawing, it is hoped, sufficiently explains itself that nothing more need be said about it.

## Reviews.

*Wild Life on a Tidal Wave.* London: Sampson Low, Marston, Searle, and Rivington (Limited).

This book is a large folio volume in which Dr. P. H. Emerson and Mr. T. F. Goodall relate their adventures in a house-boat on Breydon Water, in Norfolk; it is illustrated by thirty photo-etchings, by Messrs. A. Dawson and W. L. Colls, from plates taken during the sojourn in the summer of 1887. Of the plates it will suffice to say that they are worthy of the etchers, and illustrate admirably the various phases of life and scenery on Breydon Water. The tones of the pictures, warm browns and greys, suit the subjects, and the letterpress, a great part of which is in dialect, complete a book which will be an acquisition to any drawing-room. The story is by no means monotonous, and the description of the drowning accident in chapter vi. is written with a force and go which carry the reader away in spite of himself. A little later on we come across the following bit of picture writing: "The tide was falling, and as the rain abated we could distinguish the sky, the deep water of the channel, and the shallow water on the partially-covered flats spangled with silvery drops of rain, which splashed into tiny fountains, falling like liquid silver into molten silver. Such delicate harmonies of gray I never saw before, and when the rain got fine, the sun burst forth from the heavy clouds, and a glorious vision flashed upon us. There stood Yarmouth, great and grand, in the south-westerly wind and mist, a glorious rainbow stretched over the town, flashing like a mighty crescent of precious stones, whose bright reflections gleamed with a deeper glow in the topping ooze. A train passed, its smoke and steam exquisitely mirrored in the water way. The rain gradually stopped, the wind dropped, and the ripples vanished from the face of the waters, and the old town stood reflected in all its subtle and beautiful delicacy of colour. This peaceful calm lasted but an hour, and the wind shifted back again as capriciously to the eastward, and the face of the waters and of the land grew black. Later on Joey looked out and grumbled, 'It look werry wild again, like Grinlond; thar's more a-comin'.' The tide was out, but as it began to flow the wind freshened and there was a return to life." On another occasion their house-boat was stolen, and that is made the peg on which to hang a story which is so good that we cannot refrain from quoting it. Here it is:—

"In the inn we heard a good story of old Darkel. Three youths had dared to steal his boat one cold winter day, and they went for a row in her. Darkel called his son, and, having sent



him for a large wooden malt-shovel, they went down to the water side. Darkel jumped into one of his boats at the stern, and told his son to take the oars. It was a freezing grey evening, and the water was icy-cold. After rowing a few hundred yards, Darkel saw his boat ahead, so he rowed on leisurely, passing it so close that the crew had to unship oars. As Darkel's stern grazed the bows of his stolen boat he seized the mooring chain—it was a long one.

"Row on, boy," he said, paying no attention to the youths, who began to swear and strike at him with their oars. Directly they got under way the old poacher stood up and fixed them with his cold, keen eyes, holding the malt-shovel in one hand. "I mean to give you a ride for noathin', thet's all," said Darkel, ironically.

"They recognised the dreaded Darkel, and all three looked foolish.

"Now, to the nearest youth, 'what's your name, bor?'"

"I ain't got no name," replied the red-haired youth sulkily.

"Well, Mister No-name, just rub thet in," said Darkel, shovelling bucketfuls of icy-water over him.

"Then Darkel went on to number two, and asked—

"What's your name, bor?"

"Brown," he replied, thinking to be wise and courageous.

"Well, rub that in, Mister Brown," and spadefuls of water dashed over Mr. Brown.

"Then, turning to the third youth, Darkel repeated—

"And what's your name?"

"Shan't tell you," retorted the youth doggedly.

"Then rub that in, Mister Shan't-tell-you," concluded Darkel, shooting great shovelfuls of water over the luckless one. Then, turning to his son, he said, "Boy, don't row tew fast," and he went on scooping up water and ducking them in turn. At length he ordered his boy to row ashore, where he chucked them out unceremoniously, wet to the skin and trembling with cold, rage, and fear."

Nor is the book one which will prove interesting only to the sterner sex, for, as the author truly says, "une femme est au fond de chaque paysage," and the fair readers of the book will find, in the chapters headed "The Lady in White," an episode which will set their imagination at work, and give them matter for the creation of a full-blown romance.

There is an appendix by R. Fielding Harmer, treating of "Breydon Water, Past and Present," embellished with a large plan of Breydon from Yarmouth Bridge to the junction of the Yare and Waveney; and a list of British birds, showing those which have been shot or observed on Breydon Water and the land adjoining it. We commend the book to those who are interested in pictures and picturesque writings.

AN ACID ALUM FIXING BATH.—A writer in *La Photographie Française* recommends the following fixing bath as especially suitable for negatives inclined to frill and blister, which is founded on the principles first worked out by Herr Alex. Lainer:

Water .. ..	1,000 c.c.
Sodium sulphite .. ..	120 grammes.
When dissolved, add	
Sulphuric acid .. ..	15 c.c.
Chrome alum .. ..	90 grammes.

Dissolve, and add to the following:

Hyposulphite of soda .. ..	1,000 grammes.
Distilled water .. ..	3,000 c.c.

The plates should be allowed to remain in this bath for at least ten minutes after they appear thoroughly fixed. The film is rendered so hard by this bath that it may be washed with warm water without any fear of dissolving the same. We find that the fixing bath was recommended by Mr. G. Cramer for his plates.

A WELL-DESERVED HONOUR.—The *Société Française de Photographie*, at the meeting on November 7th, unanimously elected the well-known scientist, M. Janssen, President of the Society for the ensuing three years, in the place of M. Peligot, deceased. M. Janssen is a member of the Institute and Director of the Astronomical Observatory at Meudon, and is well known as one of the leading *savants* of the world. He was unanimously elected President of the late Photographic Congress at Paris.

## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

THERE was a good muster of members at the club on the 4th inst., when, according to announcement, Mr. Sturmev read a paper on "Films," which will be published *in extenso* in the next number of the *Journal of the Camera Club*.

Mr. Maskell, as bright and genial as ever, took charge of the hammer, and opened the proceedings with the usual preliminary taps. Having secured the attention of both the smoking and non-smoking elements, the Chairman showed some of Moore's metallic lantern-slide binders, and expressed the opinion that they would be very useful, especially in cases where slides went about for exhibition. It might, perhaps, be as well to line the slides with the paper binding first, in order to keep out the dust, which would be apt to get in at the corners of the metallic binders. Mr. Hastings also pointed out that the binders were not sufficiently wide to be thoroughly effective in cases where the slide and covering glass both happened to be rather thick, but, of course, that is a defect which can easily be remedied in future issues of the binders.

Mr. Sturmev then introduced the subject of the rollable transparent film, with which he had every reason to be well satisfied. The developed films he showed were certainly good, and the reader found them fairly easy to work in development, and so forth. Mr. Sturmev expressed regret at the fact that he was too busy to devote time to experiments with the film, but proposed to give the results of his own experience in the everyday working of the film. He said the makers had succeeded in getting rid of the frond-like markings which appeared on the first batches, and which were attributed to electrical action, and he considered that the advantages of the film so far outweighed the disadvantages that it was worth a trial. He understood that the film was made of soluble cotton, camphor, fusel oil, methyl, alcohol, and amyl acetate. To form the film a table was covered with a preparation of ozokerit, and the mixture spread over it with a special sprinkler. Then, before the film was quite dry, the emulsion was laid on, with the result that the two were practically incorporated. He found the best way to cut up the film after exposure was to lay it on a piece of glass, and then put a piece of 5 by 4 (the size he used) over it and cut to that. This does not appear to be a very good way of measuring off the exposures, and, in fact, the Chairman subsequently referred to it, pointing out that there was a certain amount of slip on the film, which was sure to put the 5 by 4 plate out before reaching the end of the spool.

Proceeding with his remarks, Mr. Sturmev said, after cutting off the film he soaked it in clean water, a process which took nearly all the curl out of it, and then proceeded to the development, which he effected with pyro and ammonia, using plenty, and constantly rocking the dish. It was his practice to develop five or six together, face down, which overcame the difficulty of the curling. He had found that the film would stand a large amount of ammonia when the image was well out; he had put as much as six minims. At the beginning of development a slight veil appeared all over the film of higher speed, which, however, subsequently vanished, the image appearing to form out of it. The same thing did not occur in the slower film. For uniformity and equality the film would compare favourably with any plate on the market. There was the mark, like a join which appeared in each roll, and the makers did not appear to have got over it. It was a fault that would have to be put up with; but it generally came across what turned out to be the best negative, or the one most desired. His experience of the 10 by 8 was that it would stretch evenly enough for all practical purposes. It was necessary to carry on development until the image was very visible on the back of the film, and the high lights extremely opaque. To fix the films there should be plenty of solution. He had found no difficulty in washing them, treating them in the same way as ordinary prints. To dry them it was best to pin up the smaller sizes by one corner, and the larger by two corners. As yet no satisfactory varnish had been discovered for films, which was a pity, as the negatives were not proof against silver stains, a fact which made it unsafe to use them with home-made paper. Generally speaking, Mr. Sturmev was content to take the risk of imperfections for the sake of the advantages of portability, ease of changing, and general convenience.

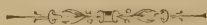


The Chairman is another enthusiast for films, and it was a strange chance which made him the mouthpiece of his absent friend, Major Nott, who is even more enthusiastic, but who was unable to attend, as the dinner in commemoration of the coming of age of the *Graphic* was taking place at the same time as this meeting. Mr. Maskell said that Major Nott had entrusted him, however, with some specimen negatives taken under disadvantageous circumstances, but which fully demonstrated the increased possibilities of photography, which were due to these films; and, further, that he had stated from experience that under adverse circumstances the film was better than any plate he knew of, and under ordinary conditions it compared favourably with any emulsion put upon glass, as far as the gradation and other qualities were concerned. The Chairman himself, like many others, has not always been quite happy with the film, and he used to find some difficulty in cutting off the exposures, but eventually he became able to feel the small roughness made by the markers. That is to be regretted, as, by his own confession, it led him to the use of bad language; such electrical discharges must be dangerous to a very sensitive film! It was necessary to feel these marks before cutting off, as there was a certain slip of the film on the roll which would be sure to put the cutter out before he got to the end of the exposures.

Mr. Cobb was rather doubtful, but then his experiences had been rather unhappy with the 10 by 8. He found several difficulties in working that, the chief being from three to eight latitudinal lines across the film, probably due to the cross clip which held it. Mr. Sturmev had also noticed these marks, but had come to the conclusion that they were due to unequal development consequent on the buckling of the film in the developer. That, however, was to be overcome by developing several films at once face downwards, putting on plenty of the solution, and constantly keeping them on the move.

Mr. Elder could not discover the speed of the film, and consequently over-exposed them all. He concluded, however, from what he had found out, that the 26 sensitometer was faster than the old stripping film, but the 28 sensitometer, well, it was really so fast that he had not yet discovered its speed. The result of all this was that he got a veil on the film which did not disappear in the fixing bath. There was an audible smile at this; probably most of the silent ones had a sort of fellow-feeling in the matter—I've seen that veil even on plates. To prevent the buckling during development, he had used a special arrangement supplied by Messrs. Wratten and Wainwright. It consisted of two frames, hinged together, the inner side being lined with india-rubber. On the bottom frame he placed a piece of clear glass, laid the film on it, and then shut down and fixed the top frame, thus making a developing dish with the film for the bottom. There was one point he had remarked, but which nobody else seemed to have noticed, namely, that the apparent join pressed on another part of the film while on the roll, thus causing a second insensitive line. His impression was that there was not the same latitude of exposure with the film as with a glass plate.

There was some doubt expressed as to whether the films could be dodged with the same facility as a plate; and Mr. Kapteyn suggested that the film could be attached to a clean glass and then treated as an ordinary negative. Mr. Sturmev rather traversed the idea that there was less latitude of exposure in a film than in a plate. He had exposed on the same view, under the same conditions, two films, one for  $\frac{1}{2}$  sec. and the other for 3 sec., and when carefully developed, it was almost impossible to tell one from the other. The Chairman, in moving the vote of thanks to the reader, said he had not experienced any difficulty in developing the films, as he always soaked them thoroughly first. His opinion was that the film was equal to what they knew as 25 Warnerke sensitometer, and for instantaneous work was absolutely equivalent.



A NEW ACCELERATOR.—Mr. Newton, at the October meeting of the Photographic Section of the American Institute, stated that he always used the following formula, and it gave excellent results for instantaneous work—Eikonogen, 5 gr.; sodium sulphite, 30 gr.; sodium stannate, 10 gr.; distilled water, 1 oz. So far as we know, the use of sodium stannate as an accelerator for photographic work is quite new.

## Science Notes.

In the *Graphic* for December 6th, the coming of age number, Major Nott has a short article on "Photography as an Illustrator of Events," accompanying a capital reproduction of an instantaneous photograph—"Caught Flirting"—taken on board a P. and O. steamer.

The new "popular" society for star-gazers—the British Astronomical Association—held its first meeting at Barnard's Inn, Holborn, on November 26th. Professor Holden sent a selection of photographs taken with the great "Lick" telescope, as a token of goodwill; and the references to photography during the evening were frequent. In his opening address, Capt. Noble remarked that the daily photographs of the sun taken at Greenwich did not do away with the need for direct eye observations, for no photograph that he had ever seen gave any indication of the complicated structure of a typical sunspot; while the so-called "veiled spots" of Trouvelot, and of the late lamented Father Perry, had so far eluded the photographic film altogether.

The December number of *Knowledge* contains reproductions of two extremely fine photographs of the moon taken at Paris by the brothers Henry, with their thirteen-inch refracting telescope.

Dr. Koch's magnificent work has rendered that dread microbe—the *Bacillus tuberculosis*—an object of popular interest. The consequence is that Mr. Andrew Pringle has photo-micrographed him; and the "series of twelve slides" can be purchased from Newton and Co.

Lord Rayleigh will lecture at the Royal Institution on January 23rd on "Some Applications of Photography."

The *Lancet* for December 6th contains an account of poisoning by swallowing some strong ammonia, in which the patient was narrowly saved from death by the operation of tracheotomy. This reminds me of an experience with this chemical (which holds so important a place in every photographer's dark-room) which I had nearly twenty years ago in the laboratories of the Royal College of Science at South Kensington. My "wash-bottle" was filled with distilled water; but, during a temporary absence, another worker borrowed it, and replaced the water by strong ammonia (indistinguishable in appearance). We happened to play a sort of "Box and Cox" arrangement, as just as I returned to my bench my friend went away. Feeling thirsty, I took a draught from the bottle, but was fortunately able to eject the liquid from my mouth instead of swallowing it. Professor Frankland kindly washed out my mouth with dilute acetic acid, but for nearly a fortnight afterwards I was wholly destitute of the sense of taste, and the whole of the mucous membrane lining the tongue and the mouth peeled off in strips. The possibility of such an accident is another reason for diluting the strong ammonia as soon as purchased.

Not being the fortunate possessor of a first-class triple lantern, I cannot try the following idea for reproducing lantern-slides in natural colours upon the screen. Using Isochromatic plates, let three negatives of any brightly-coloured subject be secured, using in the first case a screen of red glass, in the second a screen of green glass, and in the third screen of a violet glass. Make a lantern slide from each negative, and throw the three slides upon the screen together; placing in front of each lens the colour-screen (of glass) by which the negative was secured. Very accurate registration would be necessary; but this could be secured by the "metal crosses" recently described by Sir David Salomons.

The principal difficulty in trying this plan would be the securing of screens transmitting the pure colours only; and each screen would have to be tested with the spectroscope. Glass stained with suboxide of copper gives a good red, and is the only kind of "ruby" glass which should be used for dark-room purposes. Plates stained with cyanin should be used in connection with the red screen. The overlapping of the three colours named—red, green, and violet—would produce all the other tints. The dull and sombre days of winter are now upon us, but next season I certainly hope to give this method a practical trial.

"How to free silver prints from hypo in half-an-hour!" Is it possible? Yes! First—*well fix your prints*. More prints fade from insufficient fixing than from insufficient washing. After fixing, lay each print in turn on a square of glass and rinse it well under the tap, passing a roller squeegee over its surface several times. Then press the print between blotting-paper. Soak in water for two minutes, and repeat the operation. This can be



done ten times in half an hour; and prints so washed will be as permanent as it is possible for either silver prints to be, and much more brilliant than prints that have had twenty-four hours' soaking. But the water should be warm (say 90 degs.), and the work must be done by a clever and conscientious operator.

Mr. Ray Woods—the photo-astronomer—appears in the *Journal Almanac* in a new role as a “photo-joker,” in a paper proposing an *International Photographic Terrestrial Survey* by means of balloons bearing three cars one above the above—the lowest car containing the camera, the middle one the photographers, and the top one the store of dry plates! Yet I will wager that the proposal will be taken seriously by many readers.

Every expert with the lantern knows that the best limes to stand the great pressure of the mixed jet are the hard “Nottingham” limes; made (as I believe) from limestone which has been partly indurated by the proximity of volcanic rocks injected into the strata at some former geological period. If this be the case, surely marble (which is only limestone thoroughly hardened by heat) ought to answer well in the lantern, and I am pleased to find that it *does*. A piece of white marble roughly chipped into shape, and thoroughly baked for twenty-four hours in an oven (to expel the included moisture), gave results approaching those I have obtained from the best commercial limes. As a basketful of marble “scraps” can be had almost for the asking for from any stonemason's yard, the knowledge of this fact may be of use to any lanternist who happens to be in want of a makeshift for the neatly-turned cylinder of lime sold by the dealers.

F. G. S.

## Notes from the Edinburgh District.

(By our District Editor.)

PROBABLY the chief event in the photographic world in my district this week is Mr. McGlashan's communication to the Edinburgh Photographic Society on a method of printing so as to avoid halation. As to the value of the discovery, I am not competent to speak, but some of great experience who spoke at the meeting gave it unqualified praise. It is, however, difficult to discover anything new nowadays, and I am consequently quite prepared to see someone taking the credit of prior discovery. If such should be the case, any claim they may make is open to the reply that a discovery is of no value unless it be communicated to the world, and that Mr. McGlashan deserves credit, both for the working out of the process, and for so unreservedly giving the benefit of it to all his fellow-photographers.

The Photographic Exhibition is not being overwhelmed with visitors, but Mr. Blanc spoke very hopefully of it at the Society's meeting on Wednesday night, and one might say, from appearances, that it is holding its ground. The following gentlemen have been appointed jurors:—Mr. J. Traill Taylor, London; Mr. Wm. Lang, jun., F.C.S., Glasgow; Mr. C. G. H. Kinnear, architect, Edinburgh; Mr. Wm. Scott Morton, art designer, Edinburgh; and Mr. J. Paton, Greenock; three photographers and two artists. I understand it was intended to have a differently constituted jury, but the wishes of the executive could not be carried out in that respect, and the services of the above gentlemen were obtained. They began their work on Friday last, but did not conclude, and were again busy in the Exhibition on Saturday. Even then, such is the high quality of the exhibits generally, which I am told far exceeds their expectations, they could not agree as to their awards, and they have to meet again at the end of this week to determine upon their awards. Rumour has it that the gold medal is to be awarded to an Edinburgh photographer, whose name it might not be politic to divulge, but, of course, nothing is fixed yet, and any resolution which the jurors may have come to may be altered at their next meeting.

Dr. Drinkwater, Edinburgh, an ardent amateur photographer, was the lecturer on Friday night in the Exhibition. He is a lecturer on science, and accordingly had his subject, “Chemistry in the Dark-room,” thoroughly well in hand. Such a lecture can scarcely be reported; it is sufficient to say that he gave a masterly explanation of all the processes in the dark-room, illustrating his remarks on the screen. His most successful illustration was the darkening of a piece of sensitised paper by means of magnesium light. There was a large attendance, and Dr. Drinkwater was very cordially thanked for his lecture.

A huge bazaar for the benefit of the Masonic Benevolent Fund was held in the Waverley Market, Edinburgh, last week, at which the sum of about £13,000 was drawn. In the collection of goods for sale and of shows, there were many novelties, and among these was one which attracted a good deal of attention, in the shape of a photographic studio. Mr. Alexander Ayton, jun., of North Bruntsfield Place, Edinburgh, an enthusiastic mason, and generally admitted to be the most successful group photographer in Edinburgh, carried out the arrangements, and superintended the working of the studio. In the evening, electric light was used for taking the photographs, and it was this which proved the attraction, because photography by electric light has only once before been attempted in Edinburgh, and on the first occasion with not much success. Two arc lamps giving a nominal light of 4,000 candles were employed, and to diffuse the light, a screen of mineral paper was hung in front of them. The light obtained was very clear and soft, and Mr. Ayton was able to work with it with success. The studio was a complete article, containing a waiting-room with the usual display of artistic and highly-finished photographs, the operating-room, and a dark-room. One of the finest photographs exhibited was an excellent whole-plate portrait in platinotype of the Grand Master Mason of Scotland, Sir Archibald Campbell, of Blythwood, a beautifully-lighted subject, made more pleasant to look upon in that the shadows were not too deep, as is often the case with platinotype work. I may mention that Mr. Ayton is contemplating the introduction of photography by electric light as a branch of his business.

The monthly meeting of the Edinburgh Phot. Soc. was held on the 3rd inst., the President (Mr. H. J. Blanc) in the chair. In opening the proceedings he said he might report with regard to the Exhibition. He thought he was safe in saying that it was progressing in every way with perfect satisfaction to them. In every respect the Exhibition was what many of them anticipated it would be—a great attraction to the public. It took some time before it could be said to be on the rails, but now there was only one report of it by the public who had visited it—that it was full of information and full of interest. With the prospect of the New Year holidays before them, he had no doubt that when they met again he would be able to report that the Exhibition was a financial success. A certain number of lectures had been arranged for the Friday evenings, but it was intended to have intermediate lectures or lantern entertainments on the Tuesday nights in addition. This statement was received with applause by the members. Two papers were read, the first by Mr. J. McGlashan, the Treasurer, on “Some Notes on a Means of Printing from Negatives Showing Extreme Contrasts,” and the second by Mr. A. H. Baird, on “Malloch's Process for Etching on Glass.”

## Notes from the Liverpool Centre.

(By our District Editor.)

THE *Liverpool Courier* of Tuesday, the 9th inst., has the following:—“THE ARTISTS' CLUB.—On Saturday Mr. Paul Lange gave the members of this club a vivacious account of his experiences in Norway in search of the picturesque, and the lecture was copiously illustrated by lantern views of the various scenes described. Mr. Lange's exceptional skill with the camera enabled him to secure an unusually charming series of pictures and the exhibition of them was received with repeated expressions of satisfaction by the audience. Even to those who have paid a routine visit to Norway, the variety and charm of the scenes shown must have come as a surprise, Mr. Lange having seen much more than is usual by being his own cook, and arranging his tours to places off the beaten track. His opinion of the orthodox tourist to Scandinavia is that he sees about as much of Norway as the Bank Holiday excursionist sees of Wales in the course of a trip by steamer to Menai Bridge and back. Mr. James Towers, the Vice-President of the Club, was in the chair, and the lantern arrangements were in the hands of Mr. J. A. Sinclair. A hearty vote of thanks to the lecturer was given, on the motion of Mr. J. Woolfall, seconded by Mr. W. G. Fitzsimons.” It speaks well for both Mr. Lange and his Norway pictures that they were so cordially received by a critical assembly such as the Liverpool Artists' Club. The lecturer was awarded a perfect ovation.

Mr. Lange gives the Norway lecture at Glasgow on Thursday,



this week. He will be accompanied by Mr. T. S. Mayne. The two ultimately run over to the Edinburgh Exhibition, to see if they can secure anything striking and original for the Liverpool (1891) show. A large company of gentlemen from leading societies in Glasgow are to be present at the Glasgow lecture.

Mr. Gibson's (of Hexham) pictures, comprising a series of 110 frames, are now on view in the Liverpool rooms. The works as a whole are first-class, and do great credit to the clever northern counties landscape worker.

We have a number of minor lectures and demonstrations on in our centre at present. Matters seem to have slowed down, though, for Christmas.

## Apparatus.

### THE PHOTOGRAPHOSCOPE.

MR. J. T. LEIGHTON'S new patent photographoscope, which has been on show at the Edinburgh Exhibition, provides a novel method of showing photographs, while at the same time keeping them from destruction by dust and the frequent contact of moist



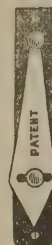
cr dirty fingers. The exterior is very elaborate, and it is claimed that it will, in a photographer's show-room or studio, attract more attention than the ordinary album. Each print is shown singly, and the number of prints is only limited by the size of the apparatus. It is of very simple construction, well made, and not likely to get out of order. Messrs. Perken, Son, and Rayment are the manufacturers, and the price is £5 5s.

### SLINGSBY'S FLASH-LIGHT DEMONSTRATION IN SOHO SQUARE.

AN interesting demonstration of Slingsby's flash-light apparatus took place last week in the studio attached to Messrs. Marions' establishment in Soho Square. When we looked in on Tuesday last in the afternoon, we found the place comfortably filled by ladies and gentlemen evidently interested in Mr. Slingsby's labours. Among a number of distinguished amateurs there was at least one live lord, and there was the genial, burly form of the well-known editor of a photographic contemporary who formed the axis of an interested circle, who eagerly listened to some remarks on the relative merits of various lenses. Mr. Slingsby took several negatives of willing sitters, and some of the examples handed round showed an amount of softness hitherto deemed impossible. He does not use the naked flash, but each lamp has a screen of some semi-transparent material in front, and at the back a reflector. This arrangement evidently diffuses the light sufficiently to produce the softness just spoken of. Several lamps were employed, and, of course, simultaneously discharged for each exposure. An admirable plan was adopted by Mr. Slingsby to prevent the involuntary start of the sitters at the moment of the flash. A piece of magnesium ribbon is ignited some distance away, and the eyes of the sitters are thus accustomed to a strong light several seconds before the supreme moment arrives. That this is an important wrinkle is evident from the placid expression on the faces in the examples handed round for inspection.

### THORNTON-PICKARD PLUMB-INDICATOR.

THE Thornton-Pickard Manufacturing Company, of Manchester, have sent us one of their new plumb-indicators, which is for use with any camera. The little piece of apparatus is nicely finished, and is supplied with screws, so that it can be immediately affixed; all that is necessary in attaching it to the side of the camera body being to see that the long edge of the plate is parallel with the edge of the woodwork. The boon of such a little instrument will be felt by all those who have, before now, experienced the effect of a tilted camera, due to the want of something vertical to range it by. The price, 1s., brings it within the reach of everybody.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BARROW FIELD CLUB (PHOT. SECTION).**—The monthly meeting was held on November 27th, when business connected with the section was discussed. Afterwards a set of prints from the AMATEUR PHOTOGRAPHER were passed round for inspection and criticism; the general opinion was that they did not as a whole come up to a previous set kindly loaned to the Society. A special meeting was held on December 1st to exhibit the set of slides loaned by the Boston Photographic Society, named "Boston Illustrated." The audience was very small, considering the entertainment provided.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—The usual fortnightly meeting was held on the 6th inst. A paper on "Intensification and Reduction" had been promised by Mr. E. J. Wall, but, in his unavoidable absence, his notes were read by the Secretary. The various methods in vogue were fully described, and their advantages and drawbacks pointed out. A discussion ensued, much valuable information being contributed by the Vice-President, Dr. Reynolds, who occupied the chair.

**CORNISH CAMERA CLUB.**—A meeting was held on the 5th inst., when the "White Mountains of New Hampshire" slides were thrown on to the screen. On Monday, the 8th inst., a meeting was held for the purpose of inspecting the slides which Mr. A. R. Dresser had lent the Club. The slides were greatly admired by a large audience, those which elicited the most applause being the photographs of the jumping dog and the instantaneous sea studies.

**CROYDON CAMERA CLUB.**—The ordinary meeting was held on the 3rd inst., the President, Mr. H. Maclean, F.G.S., in the chair. Since the last meeting which we reported the five following members have been elected:—Messrs. Sandell, Field, Oakley, Artherton, and L. C. Brookes. The few remaining tickets for the AMATEUR PHOTOGRAPHER'S show of prize lantern slides having been allotted, the President introduced Mr. Charles Hussey, who discoursed on "The Collodion Processes of Making Lantern Slides." Cameras specially suited for lantern work were shown, as also a well-contrived reducing apparatus, devised by the lecturer. The chemicals employed in the making of wet plates were reviewed, and their relations explained, after which a plate was coated, sensitised, printed (by contact), developed, and passed through the lantern. The collodion dry-plate process was similarly described. Subsequently, collodion and gelatine films were compared under the microscope in illustration of the superior delicacy of the silver deposit in the former. The subject was concluded by passing a number of the lecturer's collodion slides through the lantern.

**DARLINGTON PHOT. SOC.**—The ordinary meeting was held on Monday last. The AMATEUR PHOTOGRAPHER Travelling Student-ship photographs were on view and were much admired. Lantern slides, brought by members, were also thrown on the screen.

**DEVON AND CORNWALL CAMERA CLUB.**—The opening meeting of the winter session was held on the 8th inst. Mr. Murray, Vice-President, occupied the chair. A large number of lantern-slides by various members of the club were exhibited, the contributors being Messrs. Aldridge, Carnell, Micklewood, Murray, Tweedy, Weekes, and Worth. The next meeting will be held on the 22nd inst.



**HOLBORN CAMERA CLUB.**—A meeting was held on the 5th inst., Mr. T. O. Dear (Vice-President) in the chair. Mr. Binns and Mr. Merne were elected members of the club. Mr. John Howson demonstrated the "Method of Making Lantern Slides on Alpha Plates." For the benefit of those amateurs who liked simplicity, he said the Britannia Works Co. were about to publish a new formula of hydroquinone development to suit the Ilford dry plates, bromide paper, Alpha paper, Alpha lantern plates, and the new lantern plates. He then exposed three Alpha plates under different negatives, at a distance of six inches from the gas, giving an exposure of 2, 1½, and 1 minutes. All gave excellent results, being afterwards toned in the combined toning and fixing bath. He then used the new lantern plates, placing the frame eighteen inches from the gas, and giving an exposure of 20 seconds. These also turned out well, using the hydroquinone developer formula sent out on the boxes of the Ilford dry plates. A vote of thanks having been proposed and carried, Mr. Howson, in reply, said he would be very glad to visit the club again, probably in the spring, when the Britannia Works Co. hoped to put a new chloride of silver gelatine emulsion paper on the market.

**ISLE OF THANET PHOT: SOC:** held its monthly meeting on the 3rd inst. The chair was occupied by Mr. J. Roe, B.A., the time being chiefly devoted to experiments in flash-light photography. Several groups were photographed by members with the aid of the brilliant white light given off in the combustion of the magnesium flash powder, the plates thus exposed being taken home to be converted into negatives at the operator's leisure. Arrangements were also made for starting in the immediate future an elementary class for the help and guidance of beginners.

**LEWES PHOT: SOC:**—The ordinary meeting was held on the 2nd inst., the President in the chair. Certificates for success in the quarterly competition were presented by the President to Messrs. G. E. Constable, A. H. Webling, P. Morris, and G. J. Wightman (2). It was decided to hold an exhibition of members' work, with a lantern exhibition and entertainment, about the end of January. The prints sent into the quarterly competition were on view, certificates being awarded to Mr. P. Morris for seascapes, and the Hon. Sec. for instantaneous. January 6th will be a lantern night.

**LEWISHAM HIGH ROAD CAMERA CLUB.**—The ordinary meeting of this Club was held on the 5th inst., Mr. H. L. Davis in the chair. After the routine business of the Society had been disposed of, Mr. Malcolm Stodart read a very able paper on "Development," which was listened to with great interest by a good audience. The Secretary announced his intention of passing round the collection box at the next meeting for donations towards the Daguerre fund.

**LIVERPOOL UNIVERSITY COLL: PHOT: SOC:**—According to the rules of the above Society membership is confined to those connected with the College, either as students or as members of the staff. This restriction has considerably limited the usefulness of the Society, which has always had, as its primary object the promotion of the study of the science of photography. Some of the most interesting papers read before the Society have, from time to time, been contributed by non-members, and it has for some time past been considered very desirable for the Society to widen its sphere of action. With this object in view, the Committee approached the Council of the Liverpool Physical Society as to the possibility of establishing a photographic section of that Society, which should devote itself to the science of photography. The proposal met with universal approval; and at the annual meeting of the Physical Society held on Monday, October 27th, Professor O. J. Lodge, D.Sc., LL.D., F.R.S. (President), in the chair, the proposition was carried into effect. The section is to have its own Chairman and Secretary. Dr. Ferdinand Hurter has been elected to the former office. The meetings will commence in January with an opening address from the Chairman. It is to be hoped that by the amalgamation of the two Societies a further impetus will be given to the study of photographic science, for it is hardly necessary to say that the photographic section of the Physical Society has the entire support of all the members of the Liverpool University College Photographic Society, whilst the Physical Society in itself includes many active workers in the subject, amongst them Mr. Isaac Robers, F.R.S., and Mr. Higgs, who has been so successful in the photographing of the solar spectrum.

**LONDON AND PROVINCIAL PHOT: ASSOC:**—December 18th, ordinary meeting, which will be the last meeting at Masons'

Hall Tavern. January 1st, 1891, opening meeting of the new quarters at the Champion Hotel, Aldersgate Street.

**NORTH LONDON PHOT: SOC:**—The general meeting was held on the 2nd inst., Mr. Mackie in the chair. Mr. Bishop exhibited and described his newly-constructed stereoscopic hand-camera. The President, Mr. J. Traill Taylor, then read an instructive and interesting paper on the "Relations of Art to Photography." Foregrounds, horizon, lighting, choice of subjects, posing, grouping, perspective, clouds, etc., were all fully and admirably dealt with, each point being well illustrated by a large number of beautiful photographs which the lecturer had brought with him. Mr. Coventon exhibited several beautiful stereoscopic transparencies by Ferrier, which were greatly admired, as were also some specimens exhibited by Mr. Bishop, taken with his new camera. A discussion took place.

**SHEFFIELD CAMERA CLUB.**—The usual monthly meeting was held on the 26th ult., when a short paper was read by Mr. G. E. Maleham on "Bromide Enlargements." The different methods and apparatus, character of negative, papers, mode of exposure and development were explained, and a couple of enlargements made. Afterwards an interesting demonstration of flash-light photography was given by Mr. B. W. Winder, F.C.S.; he showed three methods of producing the light—the blow-through tube, gun-cotton, and magnesium powder, and also by burning phosphorus in pure oxygen; finally, he secured a very good negative of the President, Mr. G. T. W. Newsholme, with the aid of gun-cotton and magnesium powder.

**SOUTH LONDON PHOT: SOC:**—A meeting was held on the 5th inst, the President in the chair. After the usual routine business, Mr. Robert laid before the members specimens of a flash-lamp and also of the Lavender developer. The flash-lamp is very ingenious, the source of light being a wax match, through which magnesium is blown, and although the lamp is not much larger than an ordinary match-box for vestas, yet the flash is powerful enough to illuminate a group of fifteen or twenty persons. The Lavender developer has a powerful reducing action on the film, and acts quickly, producing a good dense negative. Mr. Robert also brought with him a number of shutters, which he duly explained to the members. The remainder of the evening was devoted to a discussion on "Photographic Dodges," and some valuable information imparted to those members present.

**SOUTHSEA AM: PHOT: SOC:**—On the 3rd inst. the ordinary meeting was held; Mr. J. J. Thornton took the chair. Dr. Wardrop read a paper on "Landscape Photography." An animated debate followed. The Chairman, owing to the fact that Dr. Wardrop was shortly to leave England to take up a valuable appointment in India, allowed the general rule to be suspended, and it was then proposed by Mr. A. Fisher, and seconded by Dr. Lord, that a hearty vote of thanks be accorded to Dr. Wardrop for the many services he had rendered to the Society, which was duly carried. Dr. Wardrop responded, sincerely thanking the members for the hearty reception which he had met with upon this occasion, adding that although leaving England the welfare of the Society would not be lost sight of by him.

**STAFF POTTERIES AM: PHOT: SOC:**—The monthly meeting was held on the 2nd inst., Mr. E. B. Wain (Vice-President) in the chair. Two new members elected. A discussion on "Printing and Toning" was opened by Mr. Hewitt, who explained the processes of albumenising and sensitising paper, and gave a few notes on the best methods of printing and toning, touching also upon the defects generally met with, their causes and remedy. The discussion was very freely carried on by the members present, and concluded with a few practical remarks from the Chairman. The Secretaries announced that the lantern and screen would be in readiness at the next evening, for trying the new slides made by members since the last lantern night.

**ST. BARTHOLOMEW'S HOSPITAL PHOT: SOC:**—The Society had their first lantern evening on the 3rd inst., and it was a marked success. The members of the Society contributed slides illustrating the subjects of anatomy, physiology, embryology, and pathology. A number of views taken by members were also exhibited.

**SUNDERLAND PHOT: ASSOC:**—The usual monthly meeting was held on the 3rd inst., and was very largely attended. The work contributed for the Society's annual competition was on view, and the proceedings concluded with a lantern exhibition of the competition slides, which were pronounced to be a great improvement on work previously submitted by the members. The Norwegian



views by Mr. Pratt called forth the highest praise. They were specially interesting, as the negatives were all taken with a home-made hand-camera with fixed-focus lens. The awards of the judge, Dr. J. Haswell, were as follows:—Portraits, prize, Mr. Robson. Stereoscopic, prize, Mr. W. Milburn. Instantaneous, prize, Mr. C. E. Cooper. Lantern-slides, first prize, Mr. W. Pratt, second prize, Mr. W. Milburn; third prize, Mr. W. S. Newby. The Council greatly regret having been obliged to withhold the prizes in the landscape and enlargement classes, and in the class for pictures taken at the outdoor meetings of the Society, in consequence of the lack of entries, but purpose having competitions in these subjects at intervals during the winter.

**TORQUAY PHOT. SOC.**—A special meeting was held on the 2nd inst., Mr. E. Vivian, M.A., F.G.S., President, in the chair. A very interesting lecture was given by Mr. R. C. Reade, entitled, "A Talk about the Forth Bridge." Several instantaneous photographs showing the bridge in course of construction were exhibited by the aid of the oxy-hydrogen lime-light.

**TUNBRIDGE WELLS AM. PHOT. ASSOC.**—The ordinary meeting was held on the 4th inst., Mr. F. G. Smart, the President, in the chair. After the minutes had been read, it was proposed by the Rev. A. T. Scott, seconded by Mr. Pierson, and carried unanimously, "That a most hearty vote of thanks be accorded to the Hon. Secretary for the excellent and efficient manner in which he carried out the very laborious and trying duties of Secretary to the Exhibition." A discussion took place as to the desirability of organising an entertainment at the Great Hall, and it was decided to refer the matter to the Committee, who were to consider it and present a report to the next ordinary meeting.

**WOOLWICH AND DISTRICT PHOT. SOC.**—The ordinary meeting was held on the 4th inst., the evening being taken up by a paper by the Secretary, Mr. G. K. Harris, on "Flash Light Photography," several negatives being taken and developed. The next meeting will be held on December 18th, at the Y.M.C.A. Institute, 1,

Conduit-road, Plumstead, the subject being "Photographic Chemistry," by Mr. Burnham.

THE "AMATEUR PHOTOGRAPHER" LANTERN SLIDES. — On Wednesday evening, 600 children assembled at the Odessa Road Board School, Forest Gate, E., to witness a lantern entertainment. Through the courtesy of the Editor of the AMATEUR PHOTOGRAPHER and the Toynbee Camera Club, over 150 choice slides were passed through the lantern, to the delight and amusement of the interested juveniles.

LAUGHTER-PROVOKING LANTERN SLIDES. — Messrs. Poulton and Sons, Taunton Road, Lee, Kent, have sent us a set of slides which cannot fail to provoke much amusement. The subject is a child of some five or six years, whose portrait tells the story of "How I served the doctor," in the following scenes.—With a smile, "He's coming to see me. I'll lead him a dance." When asked to put out his tongue, the precocious youngster answers, "See my tongue? Why, certainly." The next, "He says he can't see it," and then it is put out very far, with, "Can you see that?" As a natural consequence, medicine is mentioned, and the young gentleman chuckles and winks. "He thinks I'll take his old medicine." A bribe is offered, "Some jam; hooray!" With his quick eye he asks, "Was that a powder?" and to the doctor he remarks, with his tongue rudely put out, "Yah! I saw you," and further adds, "But I won't take it." Upon the doctor expostulating, the patient remarks, through sobs and tears, "He says I must;" but the tears are wiped away, "and now it's down." There are twelve slides in the set, and with them a reading is supplied; these slides will give much amusement to children, and many of the "grown ups" will, we are sure, "just to please the children, don't-cher know," have a hearty laugh at the portrait of the precocious patient.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4404. **Hand-Camera.**—Can Lancaster's quarter plate Instantograph be used as a hand-camera, and shall I be able to obtain satisfactory results? Of course, I should use a view finder.—DOMINE, DIRIGE NOS.

4405. **Aristotype Paper v. Celerotype.**—Will some one who has tried both the above papers say which is the best of the two for simplicity, beauty of tone, etc.? Also, which yields the best results from weak negatives? Can either of these papers be burnished in the same way as ordinary sensitised paper, or if enamel surface is wanted, is it possible to produce the finest results with the glass and chalk, or the metal plates, or is it necessary to use the wax solutions to obtain the finest results?—ARCEL.

4406. **Borax.**—I have seen a good many formulae for albumenised paper of above, but am anxious to

know as to its keeping qualities. How long will it keep?—SILVER.

4407. **Tungstate.**—Is tungstate a good bath for keeping, and do the silver prints require much over-printing?—SILVER.

4408. **Enlarging Apparatus.**—Will anyone who has used Hume's Cantilver enlarging lantern tell me if it is a really good apparatus for quarter and half-plates?—H. H. W.

4409. **Presto Hand-Camera.**—Would any kind reader of AMATEUR PHOTOGRAPHER who has used the Presto hand-camera tell me if good work can be done with it, and if it can be depended upon?—G. H.

4410. **Sulpho-Cyanide of Ammonia.**—Will some reader inform me if any ill effects are likely to arise from the use of sulpho-cyanide of ammonia and ferricyanide of potassium? I often have scratches on the hands, and do not care to run any risk of sores. Also, are any poisonous gases or substances likely to form when they are used in conjunction with acids? In the "Dictionary of Photography" it states ferricyanide is non-poisonous, but still it is in the list of poisons.—LEARNER.

## QUERIES UNANSWERED.

Oct. 3rd.—No. 4217.

17th.—Nos. 4239, 4250, 4260, 4261.

24th.—Nos. 4263, 4270, 4275.

31st.—No. 4297.

Nov. 7th.—Nos. 4310, 4312, 4314.

14th.—Nos. 4330, 4332, 4334, 4337.

21st.—Nos. 4343, 4345, 4354, 4357, 4361, 4362,

4364, 4367, 4368, 4369.

28th.—Nos. 4370, 4375, 4377.

Dec. 5th.—No. 4400.

## ANSWERS.

4383. **Sensitising a Wood Block.**—Get a copy of the "Year Book of Photography," 1889. On page 185 you will find what you require.—WILLEE.

4384. **Spots on Prints.**—It would be necessary to see the print to tell properly the cause of the spot; but why not send the print to the Editor? He will tell you the cause. You would find his answer under the "Editorial" column.—WILLEE.

4385. **Lamp for Dark-Room.**—Messrs. Perken, Son, and Rayment, 99, Hatton Garden, make a very good dark-room lamp at about 7s. 6d.—PHENIX.

4385. **Lamp for Dark-Room.**—Perken, Son, and Rayment, 99, Hatton Garden, London, send out a capital oil lantern with a fixed deep orange glass, and a moveable ruby glass, which can be raised as development proceeds. This enables you to examine the negative by the orange light only, thereby enabling you to judge the amount of detail. Price about 8s. 6d.—WILLEE.

4386. **Development.**—What does "D. S. N." mean by reliable in development? Both makes are good and reliable.—PHENIX.

4386. **Development.**—Both are reliable in development although I prefer Mawson's Castle plates or Thomas's Thickly-coated Landscape.—WILLEE.

4387. **Retouching.**—Write to Hinchcliffe, Langset Place, Woodhouse, Leeds, or to Mr. Seary, 164, Camberwell New Road, S.E.—PHENIX.

4387. **Retouching.**—You can trust your retouching to L. Hemery, Hanover Studios, Peckham, London. I have some negatives retouched by him which are all that you can desire. You have a capital book in Marion's, but retouching *proper* is very difficult to learn. If you send me a negative through Editor, I will show you how I dodge some of mine.—WILLEE.

4387. **Retouching.**—Speakman, 4, Print Street, Cannon Street, Manchester, would, no doubt, suit "Portraiture," having had an artistic training of several years in Manchester School of Art, and considerable retouching practice. The art itself is not difficult to learn, if one already has a knowledge of anatomy, and relative proportions of light and shade required to make a pleasing and truthful photograph. Lessons are given, and retouching done, by several competent persons advertising in the photographic papers.—VERITAS.

4387. **Retouching.**—I can highly recommend Mr. Hunt, of 100, Clarendon Road, Notting Hill, as being a skilful retoucher and moderate in his charges. I have had lessons from him, which I find of the greatest use. The art of retouching is certainly difficult, but can be acquired with patience and practice, and will be found very interesting work.—H. I. C.

4388. **Printing.**—The best paper I have used is of German make, marked with three stars. The price is 8d. per sheet, which cuts into thirteen pieces (cabinet and half-plate), and I should think could be obtained from most photographers. I have bought it ready cut from the London Stereoscopic Company, Regent Street; but then it is more expensive, being 1s. per packet, containing twelve half-plate size; probably they sell it uncut also. There are two kinds, pink and white. I prefer the former. Purple tints depend upon the toning solution.—H. I. C.

4388. **Printing.**—Try matt-surface paper, made by Otto Schözig, 31, Binfield Road, Clapham Road, and print cheap.—PHENIX.

4388. **Printing.**—"Beginner" should get the Blackfriars sensitised paper, best, which can be obtained of all dealers for 10d. per sheet. Price and Co. have a good stock of various qualities.—LE ROI.

4388. **Printing.**—If you want good results you must pay the price of good paper. Edwards' is good paper, but give it a salt bath before toning. Spicer's paper is also good; any dealer will get it.



For toning baths, see replies to queries 4304 and 4315, November 14th.—WILLEE.

4389. **Tripod**.—Perken, Son, and Rayment sell a sliding leg tripod half-plate at 9s. 6d., which is good at the price, or theirs at 15s. 9d. is a first-class tripod. By all means get the sliding legs.—WILLEE.

4390. **Developer**.—I have just turned out a pyro developer some months old, and used it on some-Mawson's plates (snow scenes), and was agreeably surprised at the results; the formula was about the same without the sulphite of soda. I have also used it with success on some 12 by 10 Ilford's.—WILLEE.

4390. **Developer**.—Will "Andrew" take the trouble to try his old developer? It seems to me that that would be the most satisfactory way out of the difficulty. If the solutions are clear I daresay they can be used.—PHENIX.

4391. **Developer for Bromide Paper**.—With Eastman bromide paper and their iron developer, 2 oz. should be enough to develop a dozen quarter-plates separately, that is if they are properly exposed.—WILLEE.

4392. **Toning**.—By warming your bath they tone quicker; heat to 75 degs. F. Stand toning dish in a larger one; neutralise with a pinch of common chalk.—WILLEE.

4393. **Films**.—Brush slowly and lightly, otherwise you set up an electric action.—WILLEE.

4394. **Concentrated Hydroquinone Developer**.—Make up as follows:

Quinol	...	...	...	32 grs.
Sodium sulphite	...	...	...	192 "
Citric acid	...	...	...	12 "
Potassium bromide	...	...	...	6 "
Distilled water	...	...	...	1 oz.
No. 2.				
Sodium hydrate	...	...	...	33 grs.
Distilled water	...	...	...	1 oz.

To develop, take equal parts of each, and dilute with three times the quantity of water; when making up your solutions dissolve each chemical before adding another.—WILLEE.

4395. **Exposure**.—I know of no book for which you enquire for, and do not think drawings would meet the case. Exposure tables are the nearest you will meet with.—WILLEE.

4395. **Exposure**.—"Pyro" would not find his book of typical views, with memorandum of exposures, to be so useful as he anticipates. The variation of the subject is only a minor cause of variation in exposure. For instance, the light might vary from 1 to 50, the sensitiveness of plates which different workers use varies from 1 to 12, and the diaphragm used in the lens would leave scope for a variation of 1 to 64. To give an example of this, take an average landscape with buildings and not much distance; the correct exposure, with best possible light, quickest plate, and largest diaphragm ( $f/8$ ), would be  $\frac{1}{2}$ th part of a second, whereas if a slow landscape plate were used, in the present dull weather, with the smallest stop ( $f/64$ ), the correct exposure would be over 15 minutes. These exposures are, of course, the extremes; but they serve to illustrate the uselessness of the question we so often see, "What exposure should I give for, etc.?"—ALFRED WATKINS.

4396. **Hire of Lantern**.—Apply to A. E. Wade and Co., 177, Walworth Road, London, S.E.—WILLEE.

4396. **Hire of Lantern**.—"M. Z. H." can hire lanterns and slides, for any period, from Price, Talbot, and Co., 28, Ludgate Hill, E.C., who will give him all particulars.—LE ROI.

4397. **Developing Trays**.—Willesden paper will do, but you will have to make a wooden case to fit them in, or they will not stand the weight of the developer.—WILLEE.

4397. **Developing Trays**.—Willesden paper answers very well for making dishes; but if you have a lot to do you cannot do better than have a wooden tray painted with marine glue, or varnish, so as to render it impervious to moisture.—LE ROI.

4398. **Pyro Developer**.—The dish should be gently rocked during development, otherwise you are likely to enquire, why do my negatives show spots and pinholes?—WILLEE.

4399. **Snow Scenes**.—Between 10 a.m. and 2 p.m.,  $f/16$ ,  $\frac{1}{2}$  sec., would be about correct. Take care to back your plate. Better use a smaller stop and increase exposure accordingly. See reply to 4342, November 21st; the exposure given there is for sun shining.—WILLEE.

4401. **Backing Plates**.—R. J. Wall gives the following as the best:—Sneer a drop or two of glycerine over a special black enamel paper (sometimes called bronzed purple), which can be had of most stationers, and squeegee on to the back of the plate. This must be removed before developing.—WILLEE.

4402. **Paper for Snow Scenes**.—White bromide would be most suitable for snow scenes, squeegeed on to ground-glass.—WILLEE.

4402. **Paper for Snow Scenes**.—Don't in any case use pink paper. The effect is most garish. Try bromide, platinum, or any other.—PHENIX.

4403. **Snow Scene**.—Reckon your exposure thus:

—Your picture in August required 8 seconds; this is double the exposure given by Wormald. Now refer, and see the exposure at 11 o'clock, August; you find it is  $\frac{1}{2}$  sec.; double this, as above; this equals 3 seconds. Now, snow scenes require double this amount, therefore give it 7 seconds, and you will get the proper exposure. I prefer to back my plates, and lean a little to over-exposure, thus I should give between 8 and 10 seconds.—WILLEE.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

H. M. S.—Plates as follow—B, F, E, C, D, A. (X) The shutter named is perfectly reliable. (Y) The developer will keep. (Z) No. Re prints: (1) The camera is not quite straight, so that the lines of the steeple are slightly inclined to run together at the top; you want a plumb indicator affixed to the back of camera, otherwise good. (2) Over-exposed as a piece of architecture, however good. (3) Over-exposed; all these prints should be much darker. (4) Over-exposed; we should have preferred placing the camera the other side of the road and made small boy sit on bank. (5) This is well exposed. Can you not reduce the halation on the window by rubbing the film gently with a chamois leather wetted with methylated spirit? (6) Not received. (7) Over-exposed. (8) Print much deeper; this is good. (9) This is good. All your prints want deeper printing.

REV. F. PARTRIDGE.—Under the conditions named, we should say you were most likely to under-expose, as the light, even bright sunshine, would have but little actinic power. We also think you will find the lens work at  $f/10$  more likely than  $f/8$ , and if you had to rack out because near the dogs, the aperture would be smaller still. We think the plates you name are not quicker.

E. L. CRANEY.—The only plan is to have an adapter made to screw into the flange of the half-plate lens. The only thing to do, if the camera will not rack out sufficiently, is to make a cone of zinc or sheet-iron to fix on camera front, and the other lens to take lens. By all means copy the prints without the glass.

J. THOMAS.—Provided the small negatives are sharp and good quality, the enlarged negatives can be not only equal, but superior.

F. W.—The lens is by Lee, of Holborn, and is a good lens.

DONALD H. DENMAN.—We place in the following order—3, 1, 2, 4, 5, 6, 7.

JOHN TALBOT.—(1) We cannot possibly tell the focal length and covering power of the lens merely from hearing its diameter. Unless you are a good mechanic, we should advise you getting an optician to do it for you. (2) If you can guarantee that it won't be silver-stained, it's all right, but the chances are decidedly against you. (3) About a month or six weeks ago. Either send us the lens, or else get a focus of the clouds and measure the distance of the diaphragm slot from screen.

PYROTIQUE.—To reduce 17 by 10 to lantern size is reducing five times. The rule is, add 1 to the number of times of reduction, and multiply by the focal length of the lens; this gives the distance between object to be reproduced and lens. Divide this distance by the number of times of enlargement, and the result will be distance between lens and lantern plate, e.g.  $(5+1) \times \frac{1}{2} = 6 \times \frac{1}{2} = 45$ .  $45 \div 5 = 9$ . It is not absolutely necessary to use a frame, only it prevents reflection.

Z.—You can use either collodion or gelatin-bromide emulsion. Do you want a rapid or slow emulsion? Please let us know, and we will give formula; and can you tell us what conveniences you have for emulsion-making?

E. T. ROBERTS.—(1) The camera is good. (2) The cause is probably what you say. (3) White, certainly. The print is a great deal too light, and the negative is slightly too hard, as you have used too much pyro and bromide in the developer.

LEX.—The silver is actually dissolved, and the results will be permanent and not likely to turn yellow. It is a dangerous reducer for plates, as it eats into the half-tones. We do not like the plates in question, particularly for reason No. 2.

PLATES.—No. 2, decidedly; they work well with hydroquinone. The book is not yet ready.

J. G. BRADEN.—Try Werge, 114, Berners Street, Oxford Street, W. They certainly are valuable as curiosities, and Mr. Werge will be very pleased to help you.

G. W. BASKETT.—Not by any means a practical suggestion. Soldering near gelatine is not advisable.

L. M. BIDEN.—Many thanks for the attention to the slides. Will look up the gift slides next week. Glad to hear of your good present of lantern and slides.

T. L. BUCK.—(1) So busy; will try and comply with your request next week. (2) 43, Charterhouse Square, E.C.

R. E. VICKERMAN.—The following order—No. 5, 3, 6, 4, 1, 2. The camera is an excellent instrument.

THOMAS WHITE.—The "AMATEUR PHOTOGRAPHER Annual" will help you; it will be published shortly. We note your intention to fit up a dark-room.

CHARLES C. MACKLEY (Lake of Geneva).—Many thanks for the information, which you see we note. The form is sent to you as requested.

F. PASSADORO (Genoa).—Contents of letter noted and copy of AMATEUR PHOTOGRAPHER sent to you as requested.

MISS PAYNE GALLWEY.—(1) A very well-made apparatus for the money. (2) You will find a turntable of great use. (2) Yes, early in the New Year. All the points named by you will be touched upon. (4) You had better write to the makers.

ESHER.—All prints have to be received by the 1st of the month. We cannot at present undertake further editing of the "Queries" and "Answers" column. (1) Certainly not. (2) A first-class lens. (3) Yes. Monday afternoon, please; delighted to see you.

STALE PLATES.—We never insert letters which are not authenticated.

F. GREGG.—The following order—3, 1, 4, 2.

OPHIR.—Certainly.

AN A. P. FOGGED.—Your queries shall receive attention next week.

DUBLIN.—A letter has been received from someone whose signature cannot be deciphered. In answer to the question, we beg to say that the competitor not having taken an AMATEUR PHOTOGRAPHER medal, must elect which class he will enter, and in that class only the award offered will be made.

JOHN CAMPBELL.—(1) "Preparing for Fishing Ground;" you might well dispense with some of the foreground, and a longer focus lens would be advisable. (2) "A Stiff Easterly Breeze;" good, the best of the three. (3) "Waiting for the Tide;" it is doubtful what is waiting. If you mean the smacks, they are far too small to give one that idea; if the weed, then the title is not quite appropriate. You are inclined to print slightly too deep, and there is not quite sufficient interest in your pictures to warrant grand titles, and in 2 and 3 your horizon is almost dead in the middle of print.

LEO.—There was evidently a slight glare from the sky, as the sitter's eyes are inclined to screw up; you would have got a softer effect by using a larger aperture and giving a shorter exposure. You cannot obtain a higher gloss than you have got by squeegeeing; the only thing is to enamel with collodion. To vignette cut out a hole in cardboard about the size of head and neck, and serrate the edges of the serratures up and print in an even light.

H. W. LATHOM.—"Leo XIII" is good, but the half figure entirely spoils it. Would it not have been possible to have taken him on chain? "Six Pups;" what a pity one or two did not look up! "The Chess Players;" the composition is too much on the square, the table exactly in the middle. The six pups are almost as bad. You are using pink paper, and toning and printing far too deep. Try and avoid formality, and do not put too much balance in your pictures.

ICONOCLAST II.—(1) Good; would stand a little deeper printing. (2) This is dreadfully hard; much too strong a sidelight has been used. Cover the back of negative with matt varnish and remove from face. (3) Better, vignetting serration shows. (4) A difficult subject and poor results. (5) Poor; could have been made a picture. (6) Better as a print, but not picturesque. (7) Flat. (8) Bad; the bridge is presumably in course of erection. It is taken the wrong way of plate. (9) Too full face; a corner view is preferable. (10) Good. (11) All have stood for their portraits; they are not pitching hay. (12) Good, though under-exposed. (13) Good. (14) Good. (15) A longer focus lens wanted. (16) Poor; why cut the cottage in half? You ought to have cut out wall on left. (17) Better than the silver print. (18) Poor print and too much foreground; nothing in print. (19) The best; such as this would not stand a chance. (20) Fair, but why was not camera upright? If you can send us such as 19 in bromide especially, you would stand a chance in our competitions.

W. F.—Make the solution recommended as a stock solution; make in the dark-room, and keep in the dark, as it is sensitive to light. When required for use, add in the proportion of 1 part of dye to 4,000 of distilled water; soak the plate first in 1 per cent. solution of ammonia for two minutes, drain the plate well, and soak for one minute in weak dye solution; after six plates have been soaked in the dye bath, add another quantity of stock solution; drain the plates, and dry in the dark. Use a very dull ruby light for sensitising. Further hints on request.



## Monthly Competition.

No. 19.

## SEASCAPE AND RIVER SCENERY.

Title of Photograph.	Name of Sender.
A Relief of Olden Times ...	F. Mackenzie
Allington Lock, Kent ...	J. K. Barlow
River Colne at Munden ...	H. J. McGill
Guisingamp ...	R. Gordon
View from Bridge, Dinas Mowddu ...	G. Strickland
Fishing Boats entering Whit- by Harbour ...	F. G. Smart
Smack Outward Bound ...	K. M. Pugshe
River scene at Chesham ...	W. Blizard
A Highland River ...	H. F. Kerr
Beach, Millport ...	A. H. Duncan
An August Evening ...	C. S. Cobb
Malabar ...	F. B. Hanna
Bridge of Alva, Banff, N.B.	T. Barton
River Colne, near Rickmans- worth ...	E. H. Gilbert
The Lower Pool ...	F. J. Quick
Broadstairs Sands ...	J. H. Fulton
Corbiere Rocks ...	B. Davidson
On the Dove ...	F. W. Watts
River Teme ...	J. W. Campbell
Stream between Lakes, Sand- hurst ...	E. Delamotte
Waterloo Bridge ...	Mrs. K. Bird
River Tyne ...	Miss Mary Stratfield
River Scene, Autumn ...	E. Underwood
Off Port St. Mary ...	E. B. Wain
On the Hampshire Avon ...	R. Grindle
Rapids above Niagara Falls ...	C. H. Simpson
Devil's Bridge, Locca ...	Miss M. Watson
The Sisters Afloat ...	G. Smith
On a Norfolk River ...	H. Irving
A Shady Nook ...	J. Stuart
H.M.S. <i>Scapian</i> —Troops Em- barking ...	J. G. Barrow
Killarney ...	H. J. Reeves
Loch Awe ...	A. C. Hunter
River Deveron ...	M. H. Oliver
Fairy Glen ...	F. Turner
By the River Side ...	A. H. Rudge
Clare Bridge, Cambridge ...	Miss B. M. Wilson
Running Before the Wind ...	J. Sims
Loch Rive ...	J. W. Radie
Blackstone Rock, on the Severn ...	H. Fox
Evening on the Lake of Lucerne ...	F. de Paula
Thornton Force and River, Ingletton ...	H. Crassley
Seascape, from Little Orme's Head ...	G. Emery
The Wye, from the Bridge ...	A. T. Newington
On the Wandle ...	H. R. Spencer
The Glen, Chudleigh, South Devon ...	W. Street
Gressbach Gorge ...	R. E. Shawcross
A Stormy Day ...	C. E. Cowper
A Seascape ...	L. W. Lees
By Tweed's Fair River Broad and Deep ...	A. Pitkethley
On the Severn, Evening ...	C. J. Evers
Eulbacks, near Hambledon ...	H. L. Bridger
Conegar Bridge ...	W. S. Tait
Leisure Moments ...	J. Casar
The Miners' Bridge ...	A. E. Parkes
In the Valley of the Bomsdal ...	A. G. Bristow
The Valley of the Lyn ...	A. J. Golding
Harbour, Port Erin ...	A. G. Minshall
Evening ...	Mrs. Benzon
The Seven Sisters Rocks, on the Wye ...	F. P. Pritchard
The Darent, near Shoreham ...	H. Thompson
Babbacombe Cove ...	G. E. Harris
The East Lyn, Lymouth ...	H. E. Lancaster
Brandy Cove, Mumbles ...	H. K. Bridger
Ferry Carrig ...	W. A. J. Croke
The Thames, Stratley Reach Newbury Bridge ...	W. H. Sadler
The Black Lutschine ...	H. Attewell
A Haven of Rest ...	H. Bateman
Kinsale Harbour ...	A. Brooker
After the Storm ...	J. D. Lysaght
On the Beach, Old Hastings ...	F. J. Warner
The Thames at Windsor ...	P. P. Horne
On the Daw ...	P. Ennis
Across the Forth ...	A. James
Ilfracombe Harbour ...	R. Hyde
Preparing for the Starting Gun ...	E. G. Davies
Shallow Waters ...	D. B. Jack
Mochrum Loch ...	B. S. Proctor
In the Mist ...	H. McMaster
Knarsboro', from the Castle ...	W. H. Webster
On the Mersey ...	W. R. Atkins
The Falls of Leny ...	A. C. Batty
In Chee Dale ...	J. C. Oliver
Stranded ...	Rev. C. F. L. Barn well
On Lillstock's Lonely Shore ...	A. L. M. Bonn
On the Charwen ...	C. J. Davies
The Exe, Stoke Canon ...	H. H. Sealey
	Miss C. M. A. Cresce- well

Bridge over the Aber ...	R. G. Eltherington
Church Ferry, Isleworth ...	W. F. Ward
The River Jordan ...	Miss Hardman
On the Churnett ...	F. Udale
Boscaille ...	Rev. G. E. Hermon
Sunrise in Winter ...	A. J. Jeffreys
On the Lea, near Ponder's End	J. Dudin
Ifley Loch ...	H. H. Whiting
Bechfort Bridge ...	E. Myers
Is She in Sight? ...	F. W. Kent
Holylake Shore ...	J. L. Mackrell
The Thames at Purley ...	T. R. Wright
A Creek off the Irrawaddy ...	A. G. E. Newland
On a Full Tide ...	A. R. F. Evershed
Seascape in Morecambe Bay ...	B. Jumeaux
Twilight ...	F. H. Sanderson
On the Bourne ...	H. Browne
Entrance to Hayle Harbour ...	F. B. Smith
Frwdgrech Fall, Brecon ...	C. A. Brightman
Gorleston Harbour ...	Dr. English
Stybarrow Crag ...	G. Ball
The Hay Bridge ...	W. W. Nauntun
Niagara Falls ...	J. E. Dumont
Loch Lomond ...	E. L. Roberts
Rye Harbour ...	J. H. Gibson
Fairy Glen ...	A. Battiscombe
West India Docks ...	C. N. Shadbolt
A House-Boat on the Thames	T. J. Furlong
On the North Esk ...	D. Forbes
Lock Striven ...	W. W. Ritchie
Mount Orgueil, Jersey ...	P. Sheard
Yarmouth Trawlers ...	A. Nicholson
Oulton Broad, Norfolk ...	G. E. Betjemann
Hay Mill near Ludlow ...	J. Parker
The Mill ...	E. J. Jackson
Deserted by the Waves ...	A. W. Gottlieb
Broken Water on the Lyn ...	J. Drew
Low Tide ...	P. Furnival
Torquay Harbour ...	H. Holt
Where the River Meets the Sea ...	C. Emanuel
Near Wroxham Broad ...	C. Butanshaw
A Ferry in the Stour ...	C. J. Muller
Conway River ...	H. L. Hawkesley
Glen Helen ...	J. E. Taylor
Off Holy Island ...	J. Bruce
On the Lossie ...	W. T. Barton
Filey Brig ...	Mrs. Malcolm
Meeting of the Waters ...	J. W. D. Nicholson
A Wet Morning ...	W. Carrick
River Kennet ...	W. K. Beddingfield
The River Dove ...	W. Ainsworth
A Bend in the Stream ...	T. N. Postlethwaite
The Loch ...	G. West
On the Llugwy ...	H. P. Holmes
River Teign ...	H. M. T. Tudor
River Lea, Hoddesdon ...	H. E. Butler
On the Severn ...	W. T. Crank
The Pass of Aberglaslyn ...	S. J. Bradburn
Part of One of London's Lungs ...	H. T. Mulby
"I am, Sir, a Brother of the Angle" ...	L. M. Biden
On the West Water ...	W. A. Adamson
A Spring Morning ...	E. Brightman
After Sunset ...	P. L. Bontor
Port Aberglaslyn ...	W. Moat
By Eden's Rocky Banks	T. L. Buck
Black Bridge ...	R. M. Helliar
On the Fishing Strand ...	B. A. Lewis
On the River Troilhe ...	H. C. R. Hide
Reflections ...	J. Milne
On the Medway ...	G. J. Wightman
Fordwich, Kent ...	G. S. Cousins
Sunshine and Shadow ...	J. Naylor
*Whitfield Gill Force ...	
*Near Miners' Bridge ...	
*River Wye at Glasbury ...	

\* Received without entry form.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, N.O., free of charge. The intending buyer to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the seller. As far as possible, the Editor will undertake to send report a within TWO DAYS of receipt of goods.

## DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

**Camera, etc.**—Detective camera, holds twelve plates, splendid condition; cost 30s. 8d., sell for 15s. Dyalmo, to light 5-candle power lamp, almost new; cost 20s., sell for 10s.—Shannon, jun., Aberdale, Sutton Coldfield.

Whole-plate mahogany camera, leather bellows, 18 in. extension, rapid rectilinear and wide-angle lens, pneumatic shutter (time), and all accessories; cost £18, take £8.—Apply H. M. Low, 12, Bread Street, E.C.

Half-plate Instantograph, six double backs in bags, finder, waterproof case (no legs). Exchange for latest Facile, with R.R. lens.—Salter, Carlisle.

Sands and Hunter tourist camera, 13 by 18 centimetres, three double backs, waterproof case, tripod; £8. If desired, Eastman roll-holder to fit; £2.—E. P., 34, Upper Baker Street, London.

**Cameras, Lenses, etc.**—Bargains—Thornton-Pickard camera, Popular, half-plate, quite new, every possible movement, three book backs, splendid three-fold tripod, waterproof case, hand and shoulder straps; £4. Also, whole plate French R.R. lens, fitted with Taylor and Hobson's Iris diaphragms, a splendid instrument; £3 10s. Also, Kershaw Instanto shutter, to fit above lens; 13s. Also, half-plate Ross' rapid symmetrical, with T. and H.'s Iris diaphragms, quite new; £4. Also, half-plate Optimus wide-angle lens, quite new; 40s. Above articles genuine and in perfect condition, net prices.—Cooper, 54, Chestergate, Stockport.

**Condenser.**—12in. single condenser, in mahogany frame, by Ross; take £2 5s.—Harry, 22, Ashton Street, Brighton.

**Lantern, etc.**—Powerful lantern, 4 in. condensers, three-wick lamp, 9 ft. screen, with elevator, in box, three sets life models; 90s., exchange, 140s.—Hey-side, Oldham.

**Sets.**—Lancaster's 1890 half-plate Instantograph camera, fitted with rapid rectilinear lens, pneumatic shutter, five double slides (in case), splendid set, tripod cloth, magnesium lamp, vignetting frame, plates; lot 70s., bargain; appointment, no cards.—Charles Howard, 55, Percival Street, Clerkenwell.

**Sundries.**—Large medical coil, seven powers, condenser, two sets handles, battery, all complete in polished cabinet, new; 70s. or exchange, 120s., approval.—Photo, Hey-side, Oldham.

Type, for printing reversed titles on negatives, to be sold cheap for cash, or exchange photographic goods.—22, Danes Terrace, Lincoln.

Lancaster's lantern slide carrier, quarter-plate plate-box, Tylar's quarter negative washing rack and tank, case for quarter tripod, AMATEUR PHOTOGRAPHER for 1889 (complete), and Tylar's cabinet burnisher; for highest cash offers.—Seddon, 55, Evington Road, Leicester.

Will exchange grand cockatoo and cage for hand-camera or good quarter wide-angle lens.—Harris, Printer, Plymouth.

For sale, or exchange for Tylar's metal slides, half-plate Underwood's instantaneous shutter, in good condition. Also sixty-two numbers, between March 1st, 1889, and May 9th, 1890, of AMATEUR PHOTOGRAPHER, or offers.—Garbutt, 1, Lamb's Court, New George Street, Hull.

## WANTED.

**Camera.**—Griffiths' patent lantern slide making camera from half-plate.—Dunn, 33, St. Nicholas Road, Great Yarmouth.

**Camera, etc.**—Half-plate camera, tripod, and double backs.—Particulars to 5, Gladstone Terrace, South Shields.

**Graphoscope.**—Graphoscope, with stereoscope combined. Exchange stereoscopic camera, pair of lenses, two dark slides.—C. A. Brant, Wokingham, Berks.

**Lamp.**—Four-wick lamp wanted for lantern with 4 in. condensers.—Crossley, Kodley, Leeds.

**Lenses.**—10 by 12, or larger lens, for groups, etc.; state lowest cash price.—D., Woodside, Crookham, Newbury, Berks.

An 8 by 5 Beck R.R. with Iris diaphragm.—H. B., 60, Parade, Tunbridge Wells.

**Magic Lantern.**—Magic lantern, with 4 in. condenser (Optimus or Lancaster's preferred), must be in faultless condition and cheap.—Send full particulars to M., 28, Danby Street, Peckham, London, S.E.

**Negatives.**—On loan, quarter-plates negatives, to make transparencies from.—Particulars, etc., to W. Huddart, Hartington Road, Middlesbrough.



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## NOTICES TO SUBSCRIBERS.

Subscriptions must be prepaid.

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POSTAL UNION .....	" 6s. 6d.....	" 13s. 0d.
INDIA, CHINA, ETC. ....	" 7s. 9d.....	" 15s. 3d.

## NOTICES AS TO ADDRESS.

**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the *Amateur Photographer* are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

THE PROPRIETORS OF THE *AMATEUR PHOTOGRAPHER* offer, Monthly, two prizes consisting of a  
SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP),

for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

- No. 20.—PORTRAITURE and FIGURE STUDY ... Jan. 1.  
" 21.—ANIMALS and INSTANTANEOUS SUBJECTS ... Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the *AM. PHOT.*

All photographs for any of the above competitions will be acknowledged in the columns of the *AMATEUR PHOTOGRAPHER*.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## SPECIAL COMPETITION,

ILLUSTRATING THE

## "SEVEN AGES OF MAN,"

As described in Shakespeare's Play "AS YOU LIKE IT" (Act II, Scene VII.)

FIRST PRIZE ...	GOLD MEDAL.
SECOND " ...	SILVER MEDAL.
THIRD " ...	BRONZE MEDAL.
FOURTH " ...	CERTIFICATE.

**CONDITIONS.**—That the Photographs shall be from life, in the costumes and with the surroundings of ordinary daily life. Photographs in which the subjects have been "got up" will be rejected.

The prints may be by any process. The prize photographs will become the property of the Proprietors of the *AMATEUR PHOTOGRAPHER*, who will have the right to call for the use of the negatives.

All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play, neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man."

EDITOR:—*AMATEUR PHOTOGRAPHER*,  
1, Creed Lane, London, E.C.

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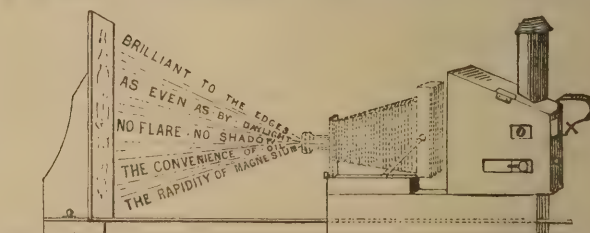
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# The AMATEUR PHOTOGRAPHER

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Offices: 1, Gress Lane, Ludgate Hill, London, E.C.

VOL. XII. No. 324.]

FRIDAY, DECEMBER 19, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—Shakespeare.

It gives us much pleasure to publish below the award in connection with the AMATEUR PHOTOGRAPHER fourth annual "Stereoscopic Slide Competition." We regret very much that Mr. Valentine Blanchard did not have the valued assistance of Mr. W. England, owing to indisposition. The slides were all carefully examined through the stereoscope, and the following is Mr. Blanchard's award:—

### CLASS I.

SLIDES MADE FOR VIEWING IN THE ORDINARY STEREOSCOPE.

*First Prize (Gold Medal).*

\*Alexander Hamilton .. .. Ashton-under-Lyne.

*Second Prize (Silver Medal).*

Captain de Crespigny .. .. London.

*Third Prize (Bronze Medal).*

\*H. G. Brierley .. .. Huddersfield.

*Fourth Prize (Certificate).*

T. D. D. Melhuish .. .. Vienna.

### CLASS II.

SLIDES WHICH CANNOT BE VIEWED IN THE ORDINARY STEREOSCOPE.

Two entries only .. .. No award.

I hereby declare that I have carefully examined every slide contributed to the Stereoscopic Slide Competition, and the above is my award.

December 12th, 1890.

VALENTINE BLANCHARD.

Mr. Blanchard has kindly sent us an article upon the general work contributed, which is published in another column, and will be read with much interest by stereoscopic workers all over the world. We may state here that the set sent in "not for competition" was contributed by Dr. Haswell, of Sunderland. Mr. Blanchard was kept in ignorance of the names of any of the competitors. We would mention that the work of the two prize winners marked with an asterisk was on glass, and the other two on paper. In Mr. Brierley's case he used with admirable effect celluloid to back up the slides. The slides will be loaned to societies immediately after Christmas; they will be allotted in order of application. We shall be glad if applicants will give *three* optional dates, in order that the ground may not be unnecessarily gone over.

**NOTE.**—The next number of the AMATEUR PHOTOGRAPHER will be published on Wednesday, the 24th inst. All communications should reach the Editor by mid-day, Monday, at latest.

WE are pleased to say that all our arrangements for the 1890 lantern slides to go "on tour" will be completed this week. They were exhibited at Croydon on Thursday, the 11th inst., to a most enthusiastic audience. Mr. Hussey had charge of the lantern, and Mr. Charles W. Hastings described the slides, at the same time giving a running commentary upon recent photography. Mr. H. S. Maclean, the energetic President of the Croydon Camera Club, was loud in his praise of the slides and of the help rendered by the AMATEUR PHOTOGRAPHER in the formation and successful launching of the Club, which now numbers some seventy members, notwithstanding the fact that it has been started only about a year. We were pleased to hear that several leading amateur photographers are taking an active interest in the welfare of the Club. The 1890 slides are on their return journey from Belfast, and will be shown at Hastings on Monday next.

It may be interesting to add that we have secured a photograph of almost all the prize winners, and each set of slides will be introduced by projection on the screen of the portrait of the competitor, and a short biographical sketch has been prepared. It may be mentioned that the prize winners include the President of the Photographic Section of the Imperial Russian Technical Society, Mr. W. M. Gratschieff; the President of the Maidstone Amateur Photographic Society, Mr. J. E. Austin; the President of the Dukinfield Photographic Society, Mr. W. Shirley; the President of the Glasgow and West of Scotland Amateur Photographic Association, Mr. Arch. Watson; the Vice-President of the Manchester Amateur Photographic Society, Mr. J. W. Wade; the Secretary of the Leith Amateur Photographic Association, Mr. A. D. Guthrie; the Secretary of the Lewes Photographic Society, Mr. E. J. Bedford; the Secretary of the Louth and District Photographic Society, Mr. S. Francis Clarke; and the Secretary of the Sheffield Photographic Society, Mr. Ernest Beck.

A SPECIAL case, from our own design, has been made by Messrs. W. Watson and Sons, High Holborn, for the slides to travel in; there are four trays, one for each class, divided into four compartments, one for each competitor. These trays are grooved and fitted at the bottom with india-rubber rests for the slides, the under side of each tray being covered with thick felt, so that each slide is gripped firmly in its groove. The four trays are kept in their place by a false top bolting into the side of the outer case, the side of which drops down when the top is open. On



the false top, cards are placed, on one side of which is given the *original* entry form, and on the other the short biography of the prize winner. The case will travel without packing or lock and key. Each recipient will have to act *immediately upon the instructions* sent him from the AMATEUR PHOTOGRAPHER offices as to forwarding. With the advice note, an address-card fitting frame on outside of box will be sent giving the address of the next recipient.

We must impress upon every one receiving the slides the *imperative importance* of sending off the box as directed, and to really see that the box is "put on rail," as the slides are booked to be shown five nights running in a week. In many of the large towns this may be done the *same night*, and by so doing matters will be much advanced. In all cases the carriage must be paid by the sender. We shall pay the carriage from London, and should the slides be returned to London we will again pay the carriage. We shall be glad of reports of the exhibition of the 1890 lantern slides that may appear in local newspapers, and trust that they may give as much pleasure to those who have the opportunity of seeing them as the preparation of the arrangements has given us

WE have received several letters thanking us for the leader last week on, as one correspondent says, "Specialists." He writes, "I have been one of those who fire at everything they come across, but I mean to try and do better in the future."

So many letters reach us with regard to the "Seven Ages of Man" Competition that we again feel it necessary to state that the text from "As You Like It" is not to be followed, but it is given to serve as a guide to base the "Ages" upon.

In another column we publish a very admirable paper by Mr. P. H. Newman on "Some Present Tendencies of Photographic Art," read before the members of the West Kent Amateur Photographic Society. We are certain that our readers will find it of great interest, and as Mr. Newman has expressed his views in no uncertain language, we are sure he will be pleased to see the paper discussed in the columns of the AMATEUR PHOTOGRAPHER.

OF our criticisms a subscriber writes:—"It encourages one to persevere, and I have on several occasions found your criticisms of much value. Hoping that success may continue to attend your efforts for the advancement of photography, I am, etc."

In another column we give a reproduction of the photograph taken by flash-light by Mr. Robert Slingsby (Lincoln) upon the occasion of the recent anniversary dinner given by the Solar Club. It is to be regretted that the President, or "Lord Uriel's," table was not better lighted, as around him were the guests of the evening and many of the principal "rays" of the Club. Mr. Slingsby has kindly sent us an invitation to attend the "Demonstrations of Flash-light Portraiture" which he is giving this week at Lincoln, but we have been unable to go so far north, owing to the many claims upon our time at this season of the year.

At the moment of going to press we have received the following communication from the Hon. Secretaries of the Photographic Society of India, with reference to the Calcutta Photographic Exhibition:—

"CALCUTTA PHOTOGRAPHIC EXHIBITION.—We regret to say that the number of exhibits forwarded to us from

abroad is so small that it has been decided to abandon the International Exhibition advertised to be held in December 1890. The Photographic Society of India beg to tender their best thanks to those who have despatched exhibits, and can only express the hope that on another occasion they will not be deterred from once again assisting us. All exhibits will be returned carriage paid as soon as possible."

THE frontispiece in the January number of the *Photographic Quarterly* will be a reproduction of the very beautiful photograph, "Confidences," by Mr. Shapcoorn Bhedwar, which has been selected from the admirable series illustrating the "Feast of Roses" that gained him a medal at the recent Exhibition of the Photographic Society. The *Quarterly* will contain articles by Mr. H. P. Robinson; Dr. Paterson; Mr. Howard Farmer, F.C.S.; Mr. C. H. Bothamley, F.I.C., F.C.S., President of the Photographic Convention; Mr. E. J. Humphrey, M.A.; Major J. F. Nott, Mr. J. Andrews, Rev. F. C. Lambert, M.A.; A. S. Reid, M.A., F.G.S.; Mr. Valentine Blanchard; and the usual summary by the Editor.

THE conversazione of the Bramley Society was a pronounced success socially and artistically. The work shown was good and interesting. Members and their friends contributed, and also the Editor of the AMATEUR PHOTOGRAPHER, and Messrs. Pearson and Denham, of Leeds, the latter sending some very fine specimens. About 150 people were present, and the evening proved all too short for a complete inspection of the many interesting items on exhibition.

THE Secretary of the Brechin Photographic Association (Mr. James D. Ross) writes to us to the effect that the Association has now secured "a local habitation," furnished with a dark-room, which they will be pleased to place at the disposal of members of other societies who may visit the district. It is anticipated that a small fee will be charged for temporary membership.

THE Earl of Onslow is the President of the Auckland (N. Z.) Photographic Club, and the Society over which he presides is in a flourishing condition. After passing through the vicissitudes incident to the formation of a new society, possibly accentuated by the fact that it is situated in a colony, the annual meeting in October was able to abolish the rule which provided that each member should be liable to calls not exceeding 10s. 6d. in each year. It was also decided that ladies should be allowed to become members, with the exclusive use of the rooms on one afternoon in each week. The latter plan is one which is worthy of the consideration of societies in this country.

THE *Photographische Archiven* has just published the details of a new method of contact printing, which will open up a wide field for experiment for amateurs. It is based on the fact that yellow phosphorus, under the influence of light, is converted into the red allotropic modification which is insoluble in carbon bisulphide. A solution of phosphorus in this solvent is first prepared and poured over a glass plate or lithographic stone, and allowed to dry in the dark. It is then exposed to the light under a negative for about half an hour, when a faint red image is produced. Any unchanged phosphorus is then washed off the stone or plate by carbon bisulphide to fix the picture. Copper or silver images can be obtained from this by immersing the plate in a silver nitrate or copper sulphate solution, when the red phosphorus reduces the metallic salt. If paper moistened



with either of the above salts be pressed on to the plate, the metallic image appears on the paper.

—♦♦♦—

THE children of the Licensed Victuallers' School, Kensington Lane, had a great treat on Monday evening, when Mr. Charles Hussey paid them a visit with the optical lantern. The first part of the time was devoted to pictures of Jerusalem, Bethlehem, Nazareth, Palmyra, etc. (from slides by Mr. F. Mason Good), illustrating a "Lecture on the Holy Land." Of the second part, the programme gives the following description:—"A series of photographs of animals taken from life; these slides were made by Mr. Hussey, from the celebrated negatives taken by Mr. Gambier Bolton, F.Z.S. The troubles and trials of an amateur photographer. Studies of child life at the seaside and elsewhere, taken with a hand or detective camera, by Mr. Thomas Bright. Instantaneous studies from Nature, of sea and sky, in sunshine and storm. Naughty little Tommy, showing how he served Dr. Bolus, and how Dr. Bolus served him. A few effects, chromatropes and comic slides." There were songs and music interspersed, and the whole affair was declared to be thoroughly enjoyable. Of course, such a verdict was a foregone conclusion when so able a lanternist as Mr. Hussey was in charge, and the Governor and Committee are to be congratulated on having secured his services. By the way, the last slide shown was a portrait of the Governor and Miss Little, reproduced from a negative taken with a hand-camera.

—♦♦♦—

At the meeting of the Liverpool section of the Society of Chemical Industry, reported on another page, a further step was taken in the discussion by Capt. Abney and Messrs. Hurter and Driffield, on the relative merits and accuracy of the sector and grease-spot photometer methods of measuring the light passing through a negative. It will be remembered that we treated the matter rather fully when it was discussed before the Camera Club.

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A LETTER which we print in our present issue draws attention to the formation of the Guildford Amateur Photographic Society. It is not surprising that, with the many charming landscapes within easy access of Guildford, the amateur photographers of the district should follow the example set by so many scores of votaries of the camera in other parts of the country. We shall await with interest the results attained by the members of the society, who possess almost *un embarras de richesse* in the sights and scenes of Surrey. Mr. G. J. Jacobs, F.R.A.S., who has been elected President, is an amateur photographer of long standing, and his influence in the district should make the society an assured success. The inaugural meeting took place on the 10th inst., at the County and Borough Hall, Guildford, and two Hon. Secretaries were appointed in the persons of Messrs. A. W. Bullen and J. H. Nunn.

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#### SOME REMARKS ON THE "STEREOSCOPIC SLIDE COMPETITION."

BY VALENTINE BLANCHARD.

It is naturally interesting in the extreme to an old stereoscopic worker to have to look at a large series of stereoscopic pictures done by modern workers with modern processes and appliances. The task I accepted has given me, therefore, a great amount of pleasure, and I have no hesitation in saying that not a single picture possessing any claim to merit escaped scrutiny in the stereoscope.

The educational value of a competition of this kind is fully shown by the work sent in, and cannot fail in helping forward the revival of the stereoscope.

As this series of stereoscopic slides cannot be placed before the readers of this journal, no good will be gained by specially criticising individual pictures, or series of pictures; the object of this paper, therefore, will be to aid the worker by pointing out the most frequently repeated faults as exhibited in the series sent in for competition, in order that they may serve as "danger" posts to warn off the unwary who are about to try their hand at making pictures for the stereoscope.

A large proportion of the pictures sent in for competition are glass transparencies, and many of them are finished with great neatness. There is great variety of tint, and the scale ranges from brick-red to slatey-grey. It may be said, however, that in two or three of the best series—that is to say, where the work is most uniformly artistic—there is least to complain of in the matter of colour.

The most striking fault in the glass pictures is heaviness in the shadows, due, apparently, to over-intensification. The most serious delinquents in this respect have probably been intensified with mercury, followed by sulphide of ammonium. This method gives a very taking tone of warm purple brown, but it has a very strong tendency to clog the shadows, and there are also serious doubts as to its stability.

In some of the transparencies printed by contact, the negatives have been carelessly cut, and show too rough edges. No mask has been used, and, therefore, in the stereoscope these rough lines catch the eye and take off considerably from the illusion.

The best series is marked "not for competition," but there is one picture in it that points out all the possibilities in stereoscopic photography of the future that I cannot help describing it. The scene is a striking one even out of the instrument—a deep, winding valley, bending round in the far distance until the steep hills on each side appear almost to touch. Cumulus clouds completely fill the sky, and there is no sunlight, but away in the distance a lighter patch of illumination in the valley indicates the possibility of sunshine shortly; otherwise, the scene is grey throughout. In the stereoscope the picture is startlingly real. There is no trace of that well-known fault in the stereoscopic pictures of old days—snowiness—and the greyness is fully explained by the heavy clouds that loom overhead, and suggest the advisability of an umbrella to anyone desirous of a tramp over the most tempting hills. Now, this picture would have been almost impossible with wet collodion, for with an exposure short enough to render the clouds so perfectly, there would have been shadows so heavy in the foreground that half the reality would have disappeared.

There is another very admirable set of pictures. They are framed in by masks between the film and the protecting glass, and show well in the stereoscope. The ground-glass effect is secured by backing with celluloid film. This material should answer admirably for transparencies. The only question that arises is how far the back would stand the friction and wear and tear of constant use. Time will soon settle this; but at present the apparently few scratches visible on the back do not show when the pictures are looked at by a properly transmitted light. Here arises a question of some importance and worth careful consideration. In making transparencies they should be perfectly luminous when viewed by a borrowed light, such as a sheet of white paper placed behind the transparency at an angle of 45 deg. If they need direct light to pierce the gloom of the shadows, they are too dense. As I have already said that this is the most serious fault in many of the transparencies sent to this competition, I wish to give special emphasis to the above remark. Another equally important remark should not be forgotten at the



same time, for they both have to do with each other—the excessive transparency in the high lights, so important for lantern slides, is not of the same importance in slides for the stereoscope. Atmosphere stands first, and bare glass in the lightest parts of the picture is, therefore, not at all a necessity. Of course, it will not do to reason from this that I advocate muddiness. My remarks about white paper as a source of illumination will show what I really desire in this respect.

The stereoscopic slides on paper are much more unequal in execution, and two sets are simply comic. Can it be that the authors of their being belong to some select society whose motto is, "How *not* to do it?" If it be so, then they may triumphantly cry "Excelsior!" for indeed they have succeeded. Their object was to produce stereoscopic slides

complete ignorance displayed in the mounting fully proves the necessity for the series of articles on the stereoscope now appearing in these pages.

In the other set referred to, two or three are correctly mounted, but most of the others are simply duplicated prints from the same negative, mounted side by side, and there is the pseudoscopic effect by way of variety. Now, seriously, is this ignorance or carelessness, or is it that these workers, through defective eyesight, are incapable of justly estimating stereoscopic effect? At any rate, I hope they will carefully read chapter 12 on page 311.

Whilst on this subject of mounting, it cannot be too emphatically stated here that it is not sufficient to properly transpose the pictures. The two pictures must be on the same plane with regard to subject, for just in proportion to



THE SOLAR CLUB DINNER.  
Flash-light Photograph. By Robert Slingsby.

for competition; that is to say, slides to be looked at in the stereoscope, and they have *done* it. In one set there is only one that is correctly mounted. Most of them are pseudoscopic; that is to say, the photographs have not been transposed in mounting, and, in consequence, when looked at in the stereoscope, the distance becomes foreground and the foreground distance; in other words, the picture is turned inside out. In other slides where they have been properly transposed, a special arrangement of the eyes, somewhat difficult to accomplish, would be necessary before the pictures could be seen in the stereoscope. If one eye could be placed higher up in the head than the other, then there would be no difficulty in properly adjusting the picture; but, alas! this is a feat not easily performed, and so the pictures must be given up as waggishly-prepared conundrums. In the set under notice the photography is by no means bad. The pictures are well exposed, and the outdoor subjects are luminous as well as delicate; but the

amount of error in this direction will there be difficulty in making the pictures combine in the stereoscope; and even where the error is slight there will be great fatigue to the eyes of the beholder after looking at several slides that are culprits in this respect.

Many of the best subjects are quite  $3\frac{1}{4}$  in. from centre to centre, and yet are readily seen by eyes of varying capacity, and this has been well proven over this competition. So it may be safely stated that with a properly constructed stereoscope having extensive focussing power, such as is furnished by the American stereoscope, any slide correctly mounted with regard to the planes of the two pictures, and properly transposed, can be readily seen by eyes of ordinary capacity, and even where the two eyes of the beholder vary in focal power, a judicious adjustment of focus will enable him to see true stereoscopic relief. In support of this statement I may mention an experiment made during the examination of the competing pictures. A gentleman, constantly



in the habit of critically examining photographs, was asked to look at some of the pictures. His reply was, "It is useless; my eyes are odd, and though I have tried again and again I have never been able to see them properly." In compliance with my request, he made another try, and with the same result. He was very short-sighted, and though the slide was put as close to the eye-piece as possible, still he could not see the subject properly. He then put on his glasses and tried again. After a glance of a few seconds he nearly dropped the instrument with astonishment. "Now I can understand why people rave about the stereoscope! I could not conceive such reality possible. Why, you can absolutely step on those stepping stones; but you would have to be careful not to tumble into the water." The stereoscope opens up a new world in photography. Many of the slides are highly glazed. Evidently gelatine paper has been used, and the pictures stripped from glass; they are so bright. Unfortunately, great difficulty in mounting has been experienced in consequence. To make this method successful it will be necessary to cut the negatives—where the twin-lens camera has been used—and thus do away with the cutting of the prints. When the prints are squeezed on to the glass, and while still wet, paste a piece of moderately stout paper on the back, and let all dry together. When the picture peels from the glass it will be practically a two-sheet card, and therefore fairly stiff; a cut-out mount of suitable dark colour with openings suitable to the picture will make all complete. One of the best series sent in to the competition had mounts of dead-black paper laid over the pictures.

One set of pictures had matt-surfaces, and were so successful that they clearly point out one of the directions in which to work. There was none of the inartistic glitter so frequently seen in prints on albumenised paper.

The aim of the above remarks on the competition pictures has been to instruct those stereoscope workers who need help in their efforts, and can be passed over by those who already know. I hope I have been successful.

## Negatives and Positives.

It is a matter of no small wonderment that there has not been formed an insurance company which shall give special attention to the goods and chattels of photographers. The collected body of amateurs alone is by no means insignificant, and when it is remembered that a liberal sprinkling of wealthy men are included in their ranks, it surely is not far from the mark when we say the total value of the lenses alone would work out an item worthy of consideration.

It is often stated that there are about 20,000 clergy of the Church of England. Roughly speaking, in summer time, one meets more cameras than parsons, although the two together are by no means an uncommon sight. Suppose we say there are 20,000 amateurs, and estimating their apparatus at an average of ten pounds each person, we get a very considerable total (£200,000) of burnable property. It may be objected that the two-guinea-set man abounds. This may be, in part, true; but to bring up the average, we know several men who have in their possession lenses alone which have cost them from fifty to a hundred pounds. However, upon this point no doubt there are many who are ready to express some opinion of their willingness to insure against destruction by fire (provided that such can be done at a reasonable rate) their dearly-beloved camera and lenses, which in many cases have been acquired by a certain measure of self-denial.

## Letters to the Editor.

### SOCIETY FOR GUILDFORD.

SIR,—In your issue of some weeks ago, you pointed out that no photographic society existed at Guildford. At that time, however, a society was in course of formation, and we feel sure you will be pleased to learn that it has now been established, and we herewith enclose a report of the first meeting, which we trust you will be able to find room for under the "Societies' Meetings" heading.

May we ask you to aid us by printing this letter, and thus make the fact known to your numerous readers in the neighbourhood?

We shall be pleased to forward full particulars to any lady or gentlemen feeling interested.—Yours truly,

A. W. BULLEN } (Hon. Secs.)  
J. H. NUNN }

### HONORARY MEMBERSHIP OF SOCIETIES.

SIR,—Like Mr. Atkins, I have been the recipient of Mr. Harvey-George's courtesy of a honorary membership ticket for twelve months to the Great Yarmouth Society.

Now what I want to suggest is this: would it not be as advisable for all secretaries of societies to exchange such courtesies, as it breeds a better spirit in us all, and assists us in reaching a photographic ideal?

Perhaps you might lend your powerful aid, and suggest that all members of recognised societies (say such as are named monthly in your excellent *Reporter*) should, on production of their cards, have all the privileges of members of the club, in the town where they happen to be temporarily passing through.

I am aware some societies practise this, but what I plead for is a uniform rule everywhere.—Yours truly,

ISAAC COHEN

(Hon. Sec., Harlesden and Willesden Phot. Soc.)  
December 12th, 1890.

THE "AMATEUR PHOTOGRAPHER" MONTHLY COMPETITIONS.—A competitor writes:—"Many thanks for your criticism on my out-of-focus print, which I have just read in the *Reporter*. It is perfectly just, and I deserved the rap for sending such a thing; but, truth to tell, I just sent it for the purpose of seeing what you would say, and you have just said what I anticipated. I will not send you any more 'fuzzigraphs.'"

AMATEUR PHOTOGRAPHIC REQUISITES.—The London Stereoscopic Company, 103 and 108, Regent Street, W., have sent us a copy of their very useful catalogue. It contains particulars of almost every kind of apparatus used in photography, and all the adjuncts and accessories required for the proper practice of the art. The Company's goods are so well known, and their enterprise so universally acknowledged, that it is needless to add that they have in their catalogue thoroughly covered the whole field of photography. "Complete Photographic Outfits" from one to fifty guineas. "Detective and Hand Cameras," the new "Artist," Stereoscopic "Artist," the twin-lens "Artist," the "Dispatch," "Compactum" and the "Kodaks" of all sizes are stocked by the Company and may be seen, and their working will be explained by competent experts to intending customers. "Evening Photography" with the flash light, a most delightful and amusing occupation at this time of the year; all the requisites are packed in a case, which can be purchased at prices varying from three to twenty guineas. The Company's "Black Band" lenses are so well known as not to need any reference, except that every size and every form of lens can be obtained. Dallmeyer's and Ross's lenses are also stocked. Dry plates, films, and paper of every approved make are kept in stock. We might mention that the Stereoscopic Company are sole wholesale British agents for "Carbutt's Flexible Negative Films." A special section of the business is devoted to printing from amateurs' negatives, enlarging, copying, etc., etc. We have said enough to show that the London Stereoscopic Company are in the front rank as caterers for the amateur photographer, and it only remains for us to add that they have very extensive works at New Southgate, where, in addition to the usual photographic printing, they have a large plant for commercial, Collotype, Woodburytype, and carbon printing. This section of the business is carried on from the City house, 54, Cheapside, E.C.



## Chemistry for Photographers.

By C. H. BOTHAMLEY, F.I.C., F.C.S.

(Continued from page 380.)

EXPERIMENT 79.—Fit up a small piece of apparatus as shown in fig. 22, using a wide-necked flask of about 50 c.c. (2 fl. oz.) capacity and a thistle funnel 15 to 20 cm. long (6 to 8 inches); it will be useful for many purposes. Put into the flask a small quantity of potassium carbonate solution, allow the delivery tube to dip into some lime water contained in a test tube or beaker, and pour down the acid funnel some dilute nitric acid; bubbles of gas will escape from the delivery tube, and they will turn the lime water milky, thus showing that they consist of carbon dioxide (compare Expt. 31 c).



FIG. 22.

EXPERIMENT 80.—Make a similar experiment with a solution of sodium carbonate and dilute sulphuric acid; a similar result will be obtained. In these results we have proof that the effervescence in Expts. 77 and 78 is due to the escape of carbon dioxide.

EXPERIMENT 81.—Dissolve 5 grammes of silver nitrate in about 100 c.c. of water, heat the liquid to boiling, and add gradually a solution of 3.7 grammes of potassium bromide in about 50 c.c. of water. Filter off the precipitate, which consists of silver bromide ( $\text{AgBr}$ ), and concentrate the clear filtrate by slow evaporation. Long needle-shaped crystals of potassium nitrate will be obtained, precisely similar to those formed in Expts. 74 and 77. The equation representing the reaction is  $\text{AgNO}_3 + \text{KBr} = \text{AgBr} + \text{KNO}_3$ , the constituents of the two salts having been interchanged.

Of the different methods of preparing salts, 1 is applicable for the preparation of almost all nitrates, but with other acids only in the case of a comparatively small number of metals; 2, 3 and 4 are very generally applicable, whilst 5 can only be employed in case one of the salts formed is insoluble, or at any rate differs considerably from the other in solubility, so that the two products may be readily separated.

There are four distinct classes of salts, formed by the displacement of different proportions of the basic hydrogen of the acids, or by subsequent changes.

NORMAL SALTS (sometimes, but improperly, called *neutral salts*) are formed when the whole of the basic hydrogen of the acid is replaced by a metal; e.g. from sulphuric acid ( $\text{H}_2\text{SO}_4$ ), sodium sulphate ( $\text{Na}_2\text{SO}_4$ ), potassium sulphate ( $\text{K}_2\text{SO}_4$ ), zinc sulphate ( $\text{ZnSO}_4$ ), magnesium sulphate; from carbonic acid ( $\text{H}_2\text{CO}_3$ ), sodium carbonate ( $\text{Na}_2\text{CO}_3$ ), potassium carbonate ( $\text{K}_2\text{CO}_3$ ).

ACID SALTS are formed when only part of the basic hydrogen of the acid is replaced by a metal. They are sometimes called *bi-salts* and sometimes *hydrogen salts*, e.g., from sulphuric acid, acid sodium sulphate, sodium bisulphate, or sodium hydrogen sulphate ( $\text{NaHSO}_4$ ); acid potassium sulphate, potassium bi-sulphate, or potassium hydrogen sulphate ( $\text{KHSO}_4$ ); from carbonic acid, acid potassium carbonate, potassium bicarbonate, or potassium hydrogen carbonate ( $\text{KHCO}_3$ ); acid sodium carbonate, sodium bicarbonate, or sodium hydrogen carbonate ( $\text{NaHCO}_3$ ). The last name in each case is the best.

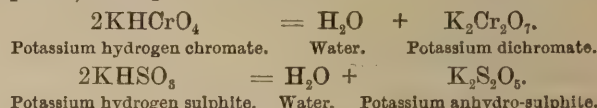
The number of acid salts which can be formed by one and the same metal from a given acid is one less than the basicity of the acid. Monobasic acids form no acid salts because the one atom of basic hydrogen which they contain must be displaced altogether or not at all; dibasic acids yield one acid salt; tribasic acids yield two acid salts, e.g., from phos-

phoric acid ( $\text{H}_3\text{PO}_4$ ), sodium di-hydrogen phosphate ( $\text{NaH}_2\text{PO}_4$ ), and disodium hydrogen phosphate ( $\text{Na}_2\text{HPO}_4$ ), the normal salt being tri-sodium phosphate ( $\text{Na}_3\text{PO}_4$ ).

Acid salts differ in a very marked manner from normal salts in many of their properties, and this is especially the case with their behaviour in certain reactions which are utilised in photographic processes. Sodium carbonate and potassium carbonate act as developers in conjunction with pyrogallol and other compounds, but sodium hydrogen carbonate and potassium hydrogen carbonate have no developing power.

It is also important to remember that the term "acid-salt" denotes the fact that the compound is intermediate between the corresponding normal salt and the acid from which they are both derived; it does not refer to the behaviour of the salt with litmus or similar compounds. Some acid salts, in fact, do not affect litmus, and since they all retain part of the basic hydrogen of the acid it is better to use such names as sodium hydrogen carbonate, etc.

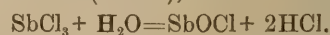
ANHYDRO-SALTS are formed from acid salts by the elimination of one or more molecules of water (hence the name) from two molecules of the acid salt, which then combine together or, as it is said, *condense*, to form the anhydrosalt. Potassium dichromate, and the so-called meta-sulphites, or meta-bi-sulphites (which ought to be called anhydrosulphites) belong to this class.



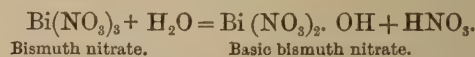
The number of the anhydro-salts is comparatively very small, but some of them, like those given as examples, are of great practical importance.

BASIC SALTS may be regarded as combinations of normal salts with oxides or hydroxides, or as normal salts in which part of the acid has been replaced by oxygen or hydroxyl. For example, the well-known beautiful green mineral, *malachite*, is a basic copper carbonate, and has the composition  $\text{CuCO}_3, \text{Cu}(\text{OH})_2$ .

EXPERIMENT 82.—Dissolve a few grammes of potassium antimony tartrate (tartar emetic) in a *small quantity* of water, add a few drops of strong hydrochloric acid, which will produce antimony chloride ( $\text{SbCl}_3$ ), and pour the solution into a large quantity of water contained in a beaker. A white precipitate will form and will gradually settle to the bottom of the beaker; it is basic antimony chloride, or antimony oxychloride ( $\text{SbOCl}$ ), formed in this way—



The action of water in *large quantity* on the normal salts is one of the principal ways in which basic salts are formed. Here is another example, the basic salt formed being a valuable medicine:—



The formation of the basic salt in this way is accompanied by the liberation of the free acid, the necessary hydrogen being derived from the water, whilst oxygen, or oxygen and hydrogen, also from the water, enter into the composition of the basic salt.

Basic salts, as a rule, are insoluble in water. When treated with the corresponding acid they are reconverted into the normal salt.

EXPERIMENT 83.—Carefully pour off the water from the precipitate in Expt. 82, and to the precipitate add some hydrochloric acid; it will dissolve, owing to its re-conversion into the normal chloride, thus,  $\text{SbOCl} + 2\text{HCl} = \text{SbCl}_3 + \text{H}_2\text{O}$ .



Similarly, if basic bismuth nitrate is mixed with nitric acid it is reconverted into the normal salt. The basic salts are formed when the normal salts are treated with water in large proportion; they are reconverted into the normal salts when treated with a relatively large quantity of acid in presence of very little water.

Amongst the metals which are most important in photography, iron, uranium, copper, and antimony show the greatest tendency to form basic salts.

(To be continued.)

## Photographing in Iceland.—X.

### THE ROUND TRIP IN DETAIL.

We left Thingvallir at 3 p.m. on July 16th, having been up at about 7 in the morning. We had a fine ride—some thirty-five miles—to Reykjavik, our starting point, a distance which we covered, with only one halt for luncheon, in about six hours.

The road from Thingvallir to Reykjavik was, perhaps, the least interesting we had encountered on our jaunt. Scarcely a feature of note was passed, and our ride into the Icelandic capital was, to all intents and purposes, a gallopade. Further, we were all anxious to get back again to Reykjavik and learn news from home. We rode hard and enjoyed ourselves. The very anticipation of renewing our acquaintanceship with civilisation, no matter how primitive that civilisation was, was a pleasure in itself. There was the additional feeling, too, that our hardships and privations were at an end, and we pressed forward faster than ever. "Look ahead" was the order of the moment.

When we reached the Hotel Iceland, we found a company of other jaunters just about returning home in the Danish mail steamer *Romny*. We decided to go home in this vessel, too, seeing that she ran to Granton. Anything, we thought, would be preferable to the wretched tub in which we crossed from Leith to Reykjavik. The *Romny* turned out a splendid sea-boat, and comfortable as well.

Our baggage did not arrive at Reykjavik for some hours after us. We sauntered about until after midnight, our artist getting one of his most choice effects here.

On the following day, 17th, we picked up odds and ends in the way of curiosities, called on various people, and made general preparations for departure on the morrow. The natives were, apparently, "real sorry" to part with us. There was much hand-shaking, but very little, if any, I think, shedding of tears—at least on our part. What the natives did in secret I can't say. We flattered ourselves that they cried just a little.

Of course, on the 18th, as the *Romny* steamed away from Reykjavik, we were all assembled on the deck bidding a long adieu to Iceland in good orthodox fashion. Our strange holiday ground and our experiences of the past fortnight or three weeks had been a revelation and an education for us. *Ultima Thule*, with its terrible, menacing desolation, its formidable heights and depths, and its molten nature boiling and bubbling under its crust, is fascinating at all times, but never more so to the jaunter than when he is steaming away from it, away across the North Atlantic homewards.

We left Reykjavik at about 10 o'clock in the morning, and twelve hours later were landing passengers and goods at the Westmann Islands. Hecla, Eyjafjalla, Jokull, and one or two other points were still visible. The weather was fine but threatening, the ship clean as a new pin, and Captain Wielson, her commander, courteous and obliging in the extreme. In fact, all on board were good company, and we anticipated a good time on the voyage.

Our anticipation proved correct. We relieved the monotony with music, smoking concerts, "rough house," and the rest, Captain Wielson assisting us in every way possible. On the 20th we sighted the Faroe Islands. It was foggy and cold at this time and the sea was "getting up"—so much so, that one or two of our party "got down." We called at Westmanhavn, and Klagsvig, and subsequently at Thorshavn and Trangisvaag. Calm and storm ruled during our stay at the Faroes. Inside the fiords the water was calm as a pond; but outside—whew! The wind howled and shrieked among the towering rocks, 3,000 feet high, demoniacally. During our stay at Thorshavn, where we were anchored, there was a wreck in the vicinity—a circumstance which made us feel rather creepy. However, nothing serious happened to us, and we reached Granton—dear old Granton—at 6 a.m. on the 24th. None of us required wakening to land; this part of the business of our trip we did in six-eight time. And then the rush in the express from Scotland down south! How we all enjoyed that! And how we enjoyed HOME!! Particularly the Benedicts of our party! All their sins and shortcomings had been forgiven them in the domestic circle long ago. They were wanted back again badly, very badly. As for the bachelors, they were at a distinct disadvantage in this—poor, lonely fellows! They must have been envious of the Benedicts.

Iceland is not a great country for the photographer; it rather suits the artist. For atmospheric effects, geological formations, purity and delicacy of colour and variety, the whole country is unique. The photographer can, and will, secure many sensational pictures in Iceland, of course. In fine weather the light is perfect, and in summer-time, with the midnight sun overhead, operations may be carried on at all hours. The photographers of the Lange expedition—the first photographic party to visit Iceland—were all well satisfied with their results. They have secured superb pictures which, when they are submitted to fellow camera men, cannot fail to prove of the utmost novelty and interest. If photographs in colours were a practical possibility, Iceland would offer an almost inexhaustible and incomparable field. Hecla, with its lava-field and snow-field walls, towering 3,000 odd feet into the blue, its snow-topped peak painted a rose-red in the golden midnight sunset, is extraordinary; so are the Geysers, the sulphur springs, the Bruara River, and a hundred other "lions." When these will be faithfully transferred to the camera plate exactly as they present themselves is, maybe, only a matter of time; when that time comes, I hope to be in Iceland again. Meanwhile, the country having been "broken up" for gentlemen of the camera brigade, by the Lange party, photographers may jaunt to and through Iceland with infinite gain. What is wanted on such an expedition are (1) a big stock of plates, (2) a trustworthy camera, and (3) a thoroughly reliable changing tent. With these, and his intelligence and experience to guide him, the photographer should return from an Iceland trip with plenty to show for his money.

AN INTENSIFIER WITHOUT A VIRULENT POISON. — To those amateurs desirous of using an intensifier of a non-poisonous nature, the following may be of service: Soak the negative in water till soft, then drain and immerse in a bath of

Ammonia	..	..	..	..	..	30 c.c.
Water	..	..	..	..	..	30 "

for a minute and a half, and then place in the following:

Cadmium bromide	..	..	..	1 gramme:
Methylated alcohol	..	..	..	1000 c.c.

till sufficiently intensified.



## Instantaneous Photography.

By W. JEROME HARRISON, F.G.S.

### CHAPTER X.

THE SENSITIVE PLATE UPON WHICH THE IMAGE IS TO BE IMPRESSED BY LIGHT.

#### *Composition of the Sensitive Plate.*

THE sensitive plate or film which lies at the back of the camera, and which receives and retains the image or picture formed by the light which passes through the lens, may be considered as consisting of three distinct parts:—

(1) The glass plate, layer of paper, celluloid, or other material, which acts as a *support*, enabling the sensitive substance to occupy a plane surface corresponding to that of the ground glass used to focus upon.

(2) The substance sensitive to light.

(3) The viscous material by which the sensitive substance is caused to adhere to the support.

#### *I.—Material used as the Support.*

(1) *Chalk*.—It is curious but true that the first photographs were taken upon *chalk*. Schulze—for whom Dr. Eder claims the title of “the discoverer of photography”—in 1727 made a colourless mixture of chalk and silver nitrate. Opaque objects, as block letters, being placed upon the white surface of the mixture, it was exposed to sunlight, which blackened the parts left uncovered. Or the white mixture was placed in a bottle, which was covered with brown-paper, out of which letters forming a name or an inscription were cut; and the bottle was then exposed to sunlight for some hours. When taken indoors and the block-letters or the brown-paper removed, their outlines were clearly depicted; in the first case in white upon a black background, and *vice versa* in the second case.

This old “bottle” experiment is to be found in Hooper’s book, entitled “Rational Recreations,” of which several editions were published in England about 1780; so that news of the experiment (which was evidently even then regarded as a striking one) must have travelled over from Germany. It is quite possible that it was this very experiment which led Thomas Wedgwood to commence his study on the possibility of producing pictures by the agency of light upon nitrate of silver about 1790.

(2) *Paper*.—In the experiments made by Thomas Wedgwood, and in which he was aided by Humphrey Davy, the account of their joint work (issued by the latter in 1802) proves that *paper* was the principal substance which they used to receive a coating of the salts of silver which they employed.

Paper was also the material used by Fox Talbot for his “photogenic process,” which he published in 1839; and for the “calotype” process, which he patented in 1841.

After the disuse of the calotype process (about 1855), paper enjoyed a rest until it was resuscitated by the Eastman Company for use in their roller-slide in 1885.

As a “support” for the sensitive photographic salts, paper has one advantage, that of flexibility. A drawback to its use, however, is that it requires treating in some way (owing to its porous nature), in order to prevent the silver salts from sinking into the body of the paper. To prevent this, Le Gray introduced *waxed* paper about 1850; and the Eastman Company covered their paper rolls with a preliminary coating of gelatine. Another disadvantage is that paper negatives are very slow printers; and, further, the “grain” of the paper is frequently visible to a disagreeable extent in the print.

(3) *Leather*.—In his paper of 1802, Davy mentions that

“for copying paintings on glass\* the solution should be applied on leather;” and he also frequently mentions “white leather” as being of use to receive the coating of nitrate of silver which Wedgwood and himself employed.

Many years later, in 1837, the Rev. J. B. Reade found leather to be so much better a “support” for the materials which he was using in experiments on photography, that he appropriated the palms of a number of white kid gloves belonging to his wife. Her (not unnatural) remonstrances led him to study the matter closely, and he found the superiority of leather to be due to the nut-galls with which it was tanned. In 1839 Reade found that the extract of such galls (gallic acid, as the chemist calls it) had the power of developing the latent image impressed by light. Reade, unfortunately, did not *publish* his discovery at the time, or he would be entitled to a high place among the fathers of photography.

With the secret of its superiority once made known, the claims of leather as a support vanished, for it was opaque and expensive.

(To be continued.)

## Photographic References.

By MAJOR J. FORTUNÉ NOTT.

(Continued from page 400.)

### FOCUSSING.

THE remarks that have been made under the various headings in this series of articles have hitherto been confined to suggestions intended to be of assistance to readers who are commencing the study of photography, and at the outset require some hints regarding suitable apparatus, accessories, and methods of manipulation. With the exception of lenses, of which we purpose treating in another division of the subject, all the absolutely necessary appliances have been enumerated and commented upon, therefore some hints regarding their employment now naturally become in order.

Acting on the assumption that one or more lenses have been procured, and that the embryo photographer is in a position to begin work, his first difficulties will be encountered when he commences focussing. With respect to the selection of the scenes or the posing of figures, we do not intend here to say anything, for the subject is embraced in the art side of photography, and does not, therefore, come within the range of a work which it is intended to confine to purely photographic procedure. Attention may, however, be drawn to the fact that certain laws governing art are applicable to the photographer, and if he fails to appreciate their influence, his work with the camera can never possess any artistic merit. It will be as well, therefore, after he has mastered the art of photographing, to turn his serious attention to the art of picture making, for the knowledge or skill which this necessitates is certainly not embodied in the mastery of the purely photographic technicalities. At the commencement of his work with the camera, no great results from an artistic standpoint can be expected; nevertheless by the proper employment of his faculties, pictures free from disfiguring or badly arranged details can easily be procured. This is a matter that can be regulated after the correct focussing has been accomplished by studying the view upon the focussing screen, with critical eyes, to see whether on the whole it forms a pleasant picture to contemplate. Some difficulty in doing this may possibly be

\* *I.e.*, paintings in transparent colours; the glass so painted was laid upon the prepared leather or paper, and the whole was then exposed to sunlight.



encountered at first, owing to the image upon the ground-glass being reversed or upside down, but very soon the eye becomes accustomed to this state of affairs so that it is barely noticed, and the regulation of the view is in no way impeded by it. By loosening the camera upon the tripod head, it can be swung round gradually and the alterations in the scene falling within the limits of the focussing screen can be watched, and the artistic perceptions of the operator should be called into use in regulating the point at which the camera should be definitely fixed. In the event of the would-be photographer possessing a quick eye for artistic effects, he will in all probability be surprised to discover how much the lines of the picture can be altered by a very slight movement of the camera. A recognition of this fact and an appreciation of the power it can give the photographer in his efforts at picture making or selection of view will form the true foundation for the practical application to photography of any subsequent information he may acquire on the art side of the subject, when mastering the laws that govern correct composition and arrangement.

Before the point arrives at which it becomes necessary to get the scene in correct focus, there are a few details to which attention should be paid. At first the novice may discover that the tripod is not such an easy thing to regulate as it appears. There is, in fact, a right and a wrong way of setting it up. One leg should either be under the centre of the back of the camera, or, for choice, supporting the front in line with the lens; in other words, the triangle formed by the three legs of the tripod should have its apex pointing in the same direction as the camera. In this position the height and level of the camera can be more easily corrected—in fact, in every way the operator will find that he possesses more command over the regulation of the view than he has when the tripod is set up in any other manner.

The next minor matter about which he should concern himself is to see that the glasses of his lens are clean. A rub with a silk handkerchief will soon remove dust or mist that may have collected on them. The difference between a photograph taken with a brightly polished or a dull or dust-covered lens is very marked, and it is a matter which does not have that attention always paid to it that its influence on the work appears to call for. It is as well, therefore, to acquire at the outset the habit of inspecting, from time to time during a day's photographing, the condition of the lens.

At first the correct focussing of a view may take considerable time, but the lessons to be gained by giving the subject careful attention are valuable. As the experience increases, the power is gained of quickly and readily adjusting the focus. Clear and sharp definition at all points is one of the objects to be attained, for although when perfect mastery over the camera has been acquired, a regulation of the degree of clearness or sharpness in the various planes of the view may probably be found desirable if softness or artistic effect be required, yet the art of regulating this is the outcome of the knowledge possessed through having first learnt how to focus sharply.

A good camera having all the movements which are now considered as indispensable will have, as aids to overcome difficulties in focussing, a reversing focussing screen, a rising front, and a back that can be given a vertical and horizontal swing. The reversing focussing screen is the means whereby the operator can change the position of the plate from the horizontal to the vertical or upright position, as the requirements of his subject may necessitate. The manipulation of this part of the apparatus is, therefore, a perfectly easy one, but the rising front and the swing-back need careful study and a complete mastery of the effects their movements

can create. With this part of the subject of focussing we purpose treating in our next article. Meanwhile, no better advice can be given to the beginner in the art than to practise focussing sharply on the ground-glass screen the objects in front of the camera, without any movement of the front or swinging of the back, and to note in connection with the subject the influence which the stops exercise thereon. By using a good and ample focussing cloth, and keeping the head under it for some little time, the eyes become accustomed to the dimness of the light falling upon the glass through the lens, and if one of the magnifying glasses sold for this special purpose is employed, the alterations in definition that result from changing the stops can easily be discerned. In that way a very valuable object-lesson can be received. It is as well also to practise setting up the camera so that it is perfectly level and all the lines of the picture are in their correct parallel. A large building or a row of houses within the field of view will give ample scope for some practice of this sort, and enable the beginner to learn the various effects that can be produced by tilting the camera one way or another. The frame of the focussing screen, or some lines drawn across it, will serve as a guide to the eyes in getting the buildings in their correct perspective, and the habit should be formed of relying upon this method of procedure rather than upon the one that necessitates spirit-levels or plumb-lines, which in ninety-nine cases out of a hundred are useless appliances. The eyes can easily be trained to correctly adjust all lines in the picture by means of the image thrown upon the focussing screen.

*(To be continued.)*

## Some of the Tendencies in Photographic Art.\*

BY PHILIP H. NEWMAN.

To observe and comment on some of the present tendencies in photographic art, one is of necessity bound to notice its exhibitions, and although opinions may be divided as to the merits or demerits of the Photographic Society of Great Britain; and however one may be disposed to quarrel now and then over the justice of its awards in particular instances, or to question the advisability of its making any awards at all; one must, I think, allow, if indeed it does not almost go without saying, the exhibition in Pall Mall is usually fairly representative. That of this year being no exception to the general rule, I shall make no apology for drawing your attention to it, as the basis of the critical remarks I have the honour to address to you this evening; premising, however, that criticism from my point of view is not necessarily fault finding, and where fault must be found, it is in no carping spirit, but after full conviction, and for that which I conceive to be of the very highest importance, viz., the true interest of art.

Now, at first sight, it may appear a very easy thing to make remarks on a photographic or any other exhibition; you have simply to go and look at the works, see which you like best, stamp them with your approval, slate all the others, and there you are. Of course one has to give some reason for one's likes and dislikes, but if this is wrapped up enough in technical phrases, bristling with plenty of the art-jargon current, one may sufficiently mystify an audience and one's voice be none the less divinely authoritative because it comes from a cloud. But as I do not like this sort of thing at any time, and have too much respect and sympathy with my audience, in the present case, to veil my own ignorance by relying upon theirs, I grapple with the fact that it is not such a very easy thing after all to give a clear and useful opinion on the great variety of works comprised in the recent show in Pall Mall.

In the first place the photographic journals have already had much to say on the subject, often dealing with the works ex-

\* Read before the members of the West Kent Am. Phot. Soc.



hibited seriatim, and pretty exhaustively; how then, am I to drag you over this ground again, and tell you that Mr. So-and-So "surpasses himself in the true æsthetic way,"—whatever that may mean—or that Mr. Somebody-else is "very much befogged" and ought not to have been hung at all? Now however necessary this sort of criticism may be thought to be in the management of a photographic journal, it cannot be said to be of much service to the amateur, so that if we are to talk profitably for an hour on the exhibition it must be on other lines than these.

Now I am not a photographer, scarcely an amateur, but very much an outsider, and I think it not unlikely that your sagacious President, when he favoured me with your invitation to read a paper, thought there might be some hope in this; at any rate, it gives me hope that in looking at things quite in an outside sort of way, I may be able to point out more in the landscape of general interest, than if I groped for it in the dark-room, or through the camera. By the way, what an awful thing it seems to have to put one's head in a bag to look for the right combination of art and nature to make a successful picture. Woe unto those who have continually to do so, and cannot see a picture in the camera of their eye before they focus it in that of wood and brass. I fancy sometimes, when I talk to some photographers, or look upon their works, that they have never got their heads out of the bag from the first moment of their focussing career; art and nature both being to them thenceforth but darksome ways illuminated only by weird and flickering lights, leading them to the valley of the shadow of artistic death. If not so, how is it that the walls of our exhibitions are often smothered by lines of frames enclosing befogged inanities representing nothing in nature or art truly; perpetrations of people who are not, and never can be, either photographers or artists; or if they should happen to excel in one direction, are so blinded that they persist in thinking they must necessarily excel in another; obstinately exhibiting caricatures of portraits, when their *forte* is landscape; or whom, though their portraits may be tolerable, maintain the idea—as shown in their works—that aerial perspective in general landscape justifies indistinctness in every plane? Let us get our heads out of the bag, at any rate, and look at this recent exhibition in Pall Mall in the light of clear and wholesome day, if possible, and without a sniff of the dark-room about us; and let us see what are our impressions, or depressions, as to questions of art. Firstly, it seems to me that this exhibition was an epoch-making one, because it emphasised new departures in several directions which the next exhibition must advance, or stultify itself as to its present leading. These new departures are principally in reference to printing processes. The old albumen silver print is becoming rapidly a thing of the past; it lingers here and there, unmedalled, on the walls; and it may not be prophesying too much to say that in the next exhibition it will be extinct, and that, for better or for worse, platinum and bromide will hold its place. Another new departure that undoubtedly will be more greatly in evidence in the next exhibition than even in this, is rough surfaced paper, as used in most of the new processes. Again, the carbon process seems not only to hold its own, but is gaining in interest as affording opportunity for a genuinely artistic alliance with hand work, as evidenced in some prints showing dry point finishing. There are on the walls many excellent examples of photo-etching and photo-gravure, but I only allude to them in passing; it would take far too long to enter into their merits and progress particularly, or to more than mention the highly interesting Diazotype printing, based on the application to the art of the new coal-tar colour, primuline. While speaking of photo-gravure, it must be remarked, as subject of regret, that the processes whereby it is endeavoured to produce engraved blocks for stereotyping, or to be used with ordinary letter-press type, are in a most unsatisfactory state, at least, for all commercial purposes where an artistic result is desired; the monotony of tone, or mere smudginess being in most cases very disappointing. A great field is open here for photographers to invent a really artistic process to serve the purposes of the ordinary wood blocks. I may be forgiven for dwelling upon this if it does not arise naturally from the exhibition so much as from my own personal feelings and experience in regard to a series of illustrations "processed" from very tolerable negatives of my own, the prints being far, however, from all one could desire. The exhibits of photo-micrography how, if anything, an advance; in their direction, the painstaking labour of those who devote themselves to this less picturesque portion of the art is evidently bearing most desirable fruit in the general application of their results to purposes of study. If your

worthy President does not make what is generally known as an artistic exhibit with his bacilli and dry bones, it must be allowed that he has succeeded in getting such a range of tones in the printing of these anatomical illustrations that in an artistic point of view some of the landscapists may envy him. And now, having lightly touched on a variety of classes of exhibits in this Pall Mall show, it is time for me to direct your attention to that which I conceive to be one of the most important, if not quite the most important subject for our consideration, and wherein, I think, a decidedly epoch-making departure for good or bad must be admitted—I, of course, allude, as you will have guessed, to the medalled exhibits of Messrs. Davison and Clark. The work of these gentlemen is always brave and conscientious, and worthy of the greatest respect, and in this particular instance their exhibits are highly deserving the awards the Society have given them. But while admitting that the works are in one direction a very great success indeed, I must demur to the success being in the direction that is generally supposed. Messrs. Davison and Clark are artists, artists of the camera if you will, but that is an accident; did their practice lead them to use any other medium as a means of expression, they could not help being artists, even if their technical results were not so successful as in the art of photography. Now the general belief is that the works, "Dedham Lock," "Dedham Bridge," and the "Old Farmstead," etc., owe their charms as much to the merits of the printing processes employed, and the accentuation of an out-of-focus motive as to other characteristics; but it is precisely here that we must distinguish between success and failure. The choice of subjects, composition, and all that technical excellence can give, with one exception, are eminently pleasing and satisfactory, promising artistic and interesting pictures; but this exception in their negatives, emphasised especially in the case of Mr. Davison in his printings, indicated that these gentlemen have thrown away the substance, so to speak, for the shadow, and are satisfied by a result, which, because it gives a more or less close resemblance to a second-rate sepia drawing, is deemed artistic.

But I think I hear you say: Oh! don't you like rough paper, then, and fuzzy prints, and sepia tones? Personally, I do like the rough and fuzzy effect. I will allow that my idiosyncrasy is better satisfied when my eye has some artistic work to do, and has to complete for itself a more or less well-defined image. Moderately-near-sighted people are favoured in this respect, and perhaps that is one of the reasons the projected enlargement on the screen of a photographic picture—gives me far greater enjoyment than any printing process has ever done, mainly, I say, because of this work the eye often has to do in such a case. I shall have occasion to speak further on more particularly of screen enlargements, and will return for the moment to fuzziness in prints and rough paper, which, though I have said that I liked, I now desire to make myself clearly understood, by adding that, as with every other artistic attribute, I like it in its proper place, without which, I emphatically deny its *raison d'être*. The roughness or smoothness of surface of a work of painting, printing, or photography, is simply a question of scale, argue the matter out as you may, it always comes to that.

Let no one persuade you to the contrary, the use of a rougher paper than the area of your print justifies is an affectation, and a sin against good taste. That you may be the more readily convinced that this dictum is neither arbitrary nor empirical, let us look at the subject for a minute or two from a very common-sense standpoint, and I will ask any one with ordinary eyesight, how far he places a photograph or other object from his eyes when he is looking at it for ordinary purposes, viz., to be pleased or refreshed by its artistic suggestion, or the memories it may recall—I say its ordinary purposes? I shall be answered, the distance referred to is generally rather less than twice the length of the greatest diameter of the work under inspection. This being so, I will further ask the person inspecting the work at that ordinary distance, if he, or she, desires to see the undulations in the texture of the paper, or surface, before, or simultaneously with the subject under view; whether the ribs and marking in the structure of that paper, or surface, contribute in any degree to the enjoyment of the picture? No, I shall be generally answered not at all, but rather, that the lines and markings militate against that enjoyment, distract the eye, and withdraw in some measure the attention from the picture, or subject, whatever it may be. I may be asked to be more precise as to the proper distance to view a work of art with fairness to the artist and enjoyment to one's self? I can only say—always subject to



variable idiosyncrasy, of course—that that distance will be approximately given by double the altitude of an equilateral triangle constructed on the greatest height, or width, as the case may be, of the work to be looked at; and I repeat, that any paper, or canvas, whose texture asserts itself, and can be distinguished equally with the work printed, or painted, upon it at the distance I have mentioned, is in bad taste, and, indeed, a barbarism and an affront. Who, I ask, but the most ignorant person, would think of printing a *carte-de-visite* on very rough paper? Who, but a most affected or ignorant person would pretend to be satisfied with it? When done, should we derive any satisfaction from the works of Teniers, or Gerard Don, had they been painted on brickbats or sandpaper? Would the pictures of Peter de Hooghe, Van der Heyde, or other painters of detail, charm us, did we see the lines in the canvas, falsifying by their light and shade the drawing in their work? Of course the reverse of the proposition holds good, and we are none the less displeased with a smooth hard surface in a large wall painting or fresco. Roughness or granulation here gives life and brilliancy, and at the same time a sense of vagueness, which the eye is doubly charmed to correct for itself, and complete our artistic satisfaction. Roughness of surface then is, as I have said, a matter of scale in all cases, and a scale which we must naturally apply to the works in the recent photographic exhibition, and I fear very much in their disfavour; for on the application of the test I have mentioned we shall see the structure of the paper in many instances asserting itself before we have time to enjoy the pictures. I am compelled to dwell particularly on this in a paper addressed to a society of amateurs, and treating on some of the recent tendencies in photographic art, because where professors have been in error, amateurs are most likely to stumble. Now it is, of course, very interesting to see such a very successful work as Mr. Davison's pin-hole picture, but it must be remembered that if the rule of scale applies to roughness of paper proportionately with the size of the work, to be consistent, it must equally apply to vagueness of outline from any other cause; indeed, such as the pin-hole gives. The question then arises, Does Mr. Davison's pin-hole picture justify this vagueness in point of size? I am afraid we are driven to the conclusion that it does not, and quite apart from the considerations of whether under any circumstances excepting the necessity of the case where a lens is not obtainable, or for an experimental *tour de force*, a pin-hole is desirable at all, or whether in the nature of things it is desirable to have photographs excepting of limited dimensions? It is more than questionable whether fuzziness is not entirely out of place, excepting in very large scenic work in landscape, and only tolerable in photography at all in life-sized portraiture. But because of this very desirability of fuzziness in the life-sized head it must be the less desirable in the much smaller scale of the landscapes we are speaking of. All praise to Messrs. Davison and Clark for their choice of subject, composition, lighting, skies, and so forth; but we cannot thank them for works on a limited scale affording no point of sharp focus for the eye to rest upon. Assuredly the works of these gentlemen, however successful they may be in one respect, distinctly fail in another, and which I point out as being based on an artistic misconception, and against which every amateur should be warned.

I have gone so far, it will be remembered, as to make use of the phrase "throwing away the substance for the shadow," and I think it must be allowed advisedly, when we consider that one of the greatest charms of photography, its greatest boast, and indeed that in which no other art ever has, or ever will approach it, is in the veracity of its delineation of detail; this charm is surely a substantial one, and it must be asked: Why photographers should seek by any means to divest their work of it in the shadowy hope of rivalling that of a painter's handling, that individual charm by which genius, making dexterous use of accidents of stroke, and flow of colour, fulfils its bent unfettered, and with the least material interposition between the artist's brain and brush.

That handling we love so much to linger over in the pictures of the old masters; touches that make the dead past live again, touches which wake our souls to sympathy with those whose works shall be immortal, because their touches show for ever their souls within their works—I say that to try to effect this by means of the camera is to endeavour to lift it from its true position, to give it another *metier*, in short, unworthily to follow in the fatigous footsteps of the fabled frog, and burst in

envious emulation. Results such as the camera, or any photographic process can ever give, can in the nature of things never affect us in the same way as those of the pencil, the graver, or the chisel. Photography has its own proper and special fields, and it is a needless prostitution of its legitimate aims to endeavour to make it subserve the imitation of another art.

Now it may be asked: Why is it then that rough papers are used? Surely the photographers know something of this rule of scale, if amateurs do not! They, many of them, do know, but they are on the horns of a dilemma, and this is the real crux of the matter. Much as the old albumen silver print is despised, none of the new processes of printing quite supply its place in range of tones; the reason being that lack of transparency in platinum and bromide papers, and necessarily incident in all matt surfaces. Photographers, feeling this, have endeavoured to mitigate the evil, by breaking up their printing surfaces, and letting light into them by using rough papers, and that, regardless of the scale which I have pointed out. We are all charmed by a chalk or charcoal drawing because of this transparency in the shadows, given equally by diagonal lines, as by roughness of surface, and it is of course wished to realise this charm in photography if possible. Since the introduction of the carbon process especially, photographers have been further stimulated by the reproduction of drawings, etchings, and engravings, and they wish to obtain similar artistic results directly from nature. We must, however, be content to wait for this until a satisfactory process is invented, for it must be allowed, I think, we have not quite got it yet. Another reason for our anxiety shows a little human weakness. We are disgusted when we hear that paralyzing phrase "a mere photograph." Let us admit at once that this is weakness: should we not rather be proud of our mere photographs? Is not the exhibition after all but an exhibition of mere photographs? At least no exhibit can be the grander by affecting to imitate some other form of art; the art of making a photograph is none the higher for making it imitate a second-rate sepia drawing.

But there are other photographs at the exhibition which are calling loudly for our attention. Vander Weyde's capital Japanese costume group, Mr. Sawyer's artistic effects on the Tyne, and the excellent works of Mr. Gale and Mr. Edgar Lee. Mr. F. H. Evans gives some excellent and well-chosen pictures from Canterbury Cathedral. No one who has not photographed in a cathedral knows quite what it means. The temper and patience necessary in keeping the authorities—from dean to vergers—in good humour during the long exposures in the dark interior is a diplomatic exercise of no mean order. Vergers particularly have a rabid, if pious, horror of a tripod stand. Visitors to the cathedral also get in front of the camera, and although they do not always spoil a long exposure, cause considerable nervous anxiety to the photographer. Mr. Evans told me how long he had to expose a rapid plate in the crypt of Gloucester. I will not hazard a recollection, however, in case I might exaggerate. It is pleasant to note that in photographing architectural objects, the custom of placing the camera directly in front, so as to get a symmetrical picture, is giving way to a more artistic insight, and consequently a more desirable result. In mentioning the very artistic results observable in landscape by Mr. Sawyer and others, it should be noticed that these are obtained apparently by perfectly legitimate means; a selection of time and subject; atmospheric effect occurs in its proper place and planes, the choice of the stops used has been judicious, and no sacrifice of sharpness, or rather clear definition, is made unnecessarily. That there should be perfectly successful work in landscape, with atmospheric effect, and aerial perspective in the receding planes, at the same time that an agreeable and reasonable amount of definition is given in the foreground, is in itself an emphatic protest against a school of photographers who endeavour to persuade us that an inartistic subject may be rendered acceptable by fuzziness, and by the artists deliberately stultifying themselves in the use of the lens—I mean in putting the subject entirely out of focus. It is, of course, a pity that such a false view of art should obtain at all in the face of the customs and traditions of past centuries, but that men whose tastes and abilities have been shown to be superior to many of their contemporaries, should be induced to stoop to such trifling devices is almost incredible, and greatly to be deplored, in the interest of that art they might do so much to advance. I revert now to the subject of lantern exhibits on the screen, a custom on Monday evenings at Pall Mall, and which will be more honoured in the breach than in the observance, if some judicious, not to say ruthless, weeding



out does not take place, both in the interest of art, and the patience of the visitors. Moreover, to say nothing of artistic proclivities, I look upon it as a downright absurdity to continually exhibit such monstrous pictures. It is bad enough in Pall Mall, but it is worse in some places, where one is made to look upon, say a man and woman, a pair of lovers perhaps, ten feet high on a donkey fourteen feet long. I cannot admit I enjoy this sort of thing, or find the sentiment of the subject magnified proportionately. I have never seen an artistic lantern slide yet that would bear enlarging beyond eight feet diameter, and would not have been better much less. Perhaps I feel this the more that I have a weakness for lantern slides. Some people think that it is inartistic; on the contrary, it is because there is a chance of their being artistic that I like them. At the exhibition in Pall Mall they show some very good ones (especially on the Field Club nights), but I have also seen some execrably bad ones, and it is for that reason I suggest judicious weeding. It no doubt interests some amateurs to photograph an ugly building from every conceivable point of view, and perhaps he may take a diabolical pleasure in presenting them successively on the screen, but no purpose is served by it in the interests of art or of the spectators. Mr. Pecksniff had many diverse views in his office of Salisbury Cathedral, but then it *was* Salisbury Cathedral.

There are many figure compositions in the exhibition that call for notice. Some of these are medalled, I presume, for some technical excellence that is beyond my ken, as, in an artistic sense I fail to see their merits. They certainly often show a striving and effort to obtain an artistic result, but this very want of spontaneity is fatal to the success of this ambitious class of work. It would take too long to examine all these individually, and a mere catalogue would serve no useful purpose; doubtless, however, many of these photographs live in your recollection, especially those that obtained an award. Some works in the exhibition that are not medalled are very excellent indeed. Some of these—notably one silver print—can only have been passed over, I should say, because it was a silver print. If I remember rightly, it was a group of children on a cliff, treated with great delicacy and force, and called "Idle Hours," by Mr. Robert Slingsby. When I look back to the old collodion days, and remember under what difficulties excellent work was done in all parts of the world, it is matter of surprise and great dissatisfaction to me that the present facilities of operation have not allowed a much greater advance artistically than I find. Now, you know when a man has to paint a picture or design, a cartoon, or take a photograph by the collodion process, his spontaneity is necessarily handicapped by the continuity and difficulties of the absolute physical work to be done; and the long breath, *le longue haleine*, as the French say, may be exhausted before he comes to the close of his performance, and we may naturally pardon him something if the attempt surpassed the execution. But in photography—*i.e.*, modern photography, surely this is unpardonable, and one has seriously to reflect whether, after all, this is not our most important lesson—*viz.*, the small advance in genuine art in modern times. Perhaps the fact that photographs being more numerous emphasises the case of pictures being so few. I shall now bring my paper to a close by briefly summarising my observations—the more desirable because of their necessarily discursive character. Firstly, we have seen, I think, that the best negative may be done ill justice to by injudicious printing. Secondly, that obscurity and negation of sharp focus or reasonable definition, does not necessarily imply fine art. Thirdly, that the grain of the paper used in printing should not be a matter of fad, but is seriously and actually a matter of absolute scale. Fourthly, that exaggeration and affectation is an affront to æstheticism and pure taste. Also let me add that, however a society may deem it expedient and even honest to medal works tendered to them for exhibition on the sole principle of encouraging worthy effort by such means, the amateur must use his own discretion, not being scared into blind worship of such work, but sift the matter for himself, and learn to discriminate between laudable effort and entire success. If the amateur does not do this he will be, unquestionably, of those who, following blind guides, fall by the way. Now, one word to this Society in particular, who have honoured me by their kind and patient attention so far. I take it that most of you, by your very presence here to-night, if I may be allowed to say so, listening to my dry, but really earnest talk, have an equally earnest desire to do some really good work, and will take not a little pains for the mere love of art to do something more than

pour ounces of developer over glass plates and mess your fingers *pour passer le temps*, in the interest of the dry-plate maker, or for the production of fog, as each of you has a desire to do something really worth looking at. Of course in a Society like this there are many who have done so already, but I am not speaking to them, but to those, if there be any who have not been so fortunate, who are the real amateurs—I say to these: Don't fritter yourself away in formulas—the snare of all beginners; master one process, and being assured that under most circumstances you can obtain a technically good negative, don't bother yourself about the chemicals any more, but devote yourself to your art, your greatest art, the art of photographing nothing, unless you see some reasonable chance of getting a pleasant composition, an interesting subject with agreeable and harmonious lines in it; something that shall not hereafter pall upon you, something that you can endure to live with, and that your friends shall say very nice to, and really mean it when they say it; then when you have done this you may conscientiously lay the flattering unction to your soul that you have been working on the right road, and are far nearer ultimate success than some of the exhibitors in Pall Mall who, "troubled about many things," are, it seems to me, giving far more attention just now to processes and chemicals—to say nothing of blurred focusses—than they are to art. Art is art. Your art, amateur photographers of West Kent, is the art of photography, which again is the art of expressing your feelings and sympathies, something of your own *ego*, something of your own souls, if you will, by photography, "mere photography," never be ashamed of it. Let every tub stand on its own bottom, the photographic tub, if only true to itself, shall hold a dignified position; it can never be a reproach to a photograph that it is a mere photograph if an artist has selected the subject and photographed it earnestly, and with this axiom ever in his mind, *viz.*, that though "art fulfils itself in many ways," the highest purposes of any art are not fulfilled in imitating, however well, the technical qualities of another.

## Science Notes.

MR. F. TURNER writes to the *Athenæum* for December 13th, that the house at Brentford where Shelley was educated is still in existence. It is close to the Great Western Railway station, and is now called Syon Park House; a portion of "the famous bell-tree" still remains. It is clearly desirable that the photographic society nearest to Brentford should secure an adequate pictorial representation of this historical building is at once secured.

The Royal Society has awarded the Rumford medal to Professor Hertz for his work on electro-magnetic radiation. What Hertz has done has been to confirm, by actual experiments, the electro-magnetic theory of light advanced by the late Professor Clerk-Maxwell. The latter distinguished physicist showed "that a certain velocity, determinable numerically by purely electrical experiments, and expressing theoretically the velocity of propagation of an electro-magnetic disturbance, agreed within the limits of error of experiment with the known velocity of propagation of light, and, accordingly, that we have strong reason for believing that light is an electro-magnetic phenomenon." Hertz invented a receiver by which he was able to *prove* the existence of electro-magnetic waves in free space. The great importance of this idea in the theory of photography will be immediately recognised.

Attempts are being made at the Kenwood Physical Observatory, Chicago, to photograph the solar prominences.

A writer in the *English Mechanic* says that "the safety of oxygen cylinders may be taken for granted. A friend was very badly frightened once for about five seconds when he saw his fully-charged cylinder roll off the top of his cab and fall on the granite pavement at his feet; but he soon recovered himself, and would not be frightened the next time it occurred."

Against this statement we must put that of a professional in the North of England, who has just recovered £325 from Brins' Oxygen Company for damages caused by the explosion of a cylinder gauge.

The *Queen* for December 13th contains a short article on "The Lady Photographer in Ebury Street," in which the work now being done there by Mrs. Gabell is described. Our contemporary appears to think it unusual that every part of the business, except the operating, is carried on by females. Each sitter is



posed by the female head of the firm. It is stated, however, that it is hoped soon to dispense with the male assistants altogether. As lady apprentices are desired, there may be an opportunity here for some of the fair readers of the AMATEUR PHOTOGRAPHER to perfect themselves in photography.

The photographic season will begin early in 1891, for Good Friday falls on March 27th. As new converts to photography are being made daily, it is probable that there will be a great demand for apparatus and materials in the early spring, and we advise everyone to place their orders as early as possible after Christmas, or they will "get left," as was the case with many who left these things till the last minute last spring.

There is a rumour, though I do not vouch for its truth, that the Crystal Palace Photographic Exhibition will be held biennially in future. If so, there will be no exhibition there in 1891, which is to be regretted. F. G. S.



## Thursday Evenings at the Camera Club.

BY ONE OF OUR STAFF.

"INTERIOR Photography," is always an interesting subject, both for discussion and practice, but many failures occur from want of knowledge on one point or another, and, therefore, any discussions or statements by past masters in the art will be heartily welcomed by the tyros. Whether the majority of those present were tyros or not, I cannot say, but there was a large attendance at the Camera Club on Thursday to hear Lieut. Gladstone, R.N., discourse on the subject.

The Rev. F. C. Lambert occupied the chair, and in opening the proceedings he said that the present Club premises would be practically closed on the 22nd, and it was hoped that a room would be opened in the new premises on the 23rd or 24th, although it would be preferred that they should not turn up there before Christmas.

Lieut. Gladstone explained that he had considerable experience in interior photography, having visited all the English cathedrals, and many of its churches, as well as many cathedrals and churches on the Continent. In taking interiors of churches he did not like to have any figures in the picture. He knew that many persons did try to get the figures to sit still; he admired their struggle. We always did admire the struggle with adversity—(smile)—however; for his part, much as he loved his fellow-man on those occasions, he would rather be without him. It was not necessary to have the people in the picture, as, with a small stop and long exposure, the devotees could walk about in front of the camera, and even stay praying for some minutes without affecting the plate. Coming to details, he said he always used a 12 by 10 camera, and it was necessary to use the rising front considerably, and also the swing-back, to cut off the excess of foreground, which was a very common complaint in such pictures. He had found out that the amount of these two movements provided by the makers was not sufficient, so he had had his camera altered to give twice as much. In this case, however, it was necessary to keep a sharp look-out, when using a wide-angle lens, not to cut off the bottom corners; but it was a curious fact that the more the camera was tilted the more the front would be raised. He would not attempt to lay down any rule, or to give any hint about exposure, as it varied so enormously; but he would point out that over-exposure might be remedied in development, and an under-exposed plate was no good. He showed here two prints—one of the entrance to the crypt of the Chapter-house of Wells Cathedral, which was exposed for four hours, and the other one of Arthur's Chantry in Worcester Cathedral, exposed for a few minutes; in other words, with the same stop one would have required 180 times the exposure of the other. In development, he had frequently noticed that windows appeared on the film as a grey patch before development.

As a general rule, direct sunlight on a subject was bad, but he had had a few cases in which it had been a decided improvement; they might have sunlight as bright as possible so long as it was not on the object to be photographed. At one time he was troubled with a small patch of fog extending inwards from the edge of the plate; he finally discovered that it was due to reflection from the edge of the dark-slide between the shutter and the plate, which got bright with use. He had the edge

bevelled, and was not afterwards troubled with the fog. As to wide-angle lenses, two things were certain—that they should be avoided for general work, and that they were absolutely necessary on some occasions. It was useful to have a series of lenses of decreasing focus, so that a lens could be selected which would get in the desired picture without exaggerating the perspective to an alarming degree. The W.A. lens he most used was a quick one, giving an angle of 60 deg. on a 12 in. plate; that was not a very wide angle, and it was exceptional for him to use even that. There was a great deal of difference in the effect of the lens on perspective, caused by the shape of the picture; if it were an upright picture the exaggeration was much less noticeable than if it were a horizontal one. He would show them a piece of apparatus which had been the joy of his heart since he used it, viz., a levelling tripod top. He found that it shortened the time necessary for focussing considerably, and enabled the camera to be levelled, when otherwise it would have been almost impossible. Another very useful thing was a circular spirit level, an almost absolutely necessary instrument in interior architecture, it being unsafe to trust to the pillars as a test of verticality of the camera, the pillars in many places being very much curved. The view-meter he used was one of Dallmeyer's, which he found a most useful adjunct, as with it he could go about the church and select one view whilst the plate was being exposed on another.

The question of development, he considered, was best left alone, as it was impossible to recommend any special formula. Every man might take his normal developer (which he generally altered for every exposure)—(another smile)—and, by doubling the water and halving the pyro, might make a very good one to test the development with. He had used stripping films for a long time, and was not troubled with halation; when he used plates, however, he used dead-black varnish to back them. As to the time to take interiors, he had come to the conclusion that when the sun set at six o'clock it was time to stop.

The subsequent discussion was started by Major Nott, who considered that there was a charm as great in architecture as in any other branch of the art. He was a strong advocate of long-focus lenses for the purpose, and, looking at the experience he had had of interior work, he could not admit that a wide-angle lens would give a pleasant picture under any circumstances. One of the reasons of there being so many failures in interior photography was the fact that most of the hand-books told amateurs that a wide-angle lens was an absolute necessity. He belonged to the "feather-weight brigade," and did not care to have somebody else to carry his camera. Carrying it himself, he liked to have it as light as was compatible with strength, and so would dispense with the levelling top. To his mind the ground-glass was the best gauge for levelling or exposure. There were many dodges for keeping the legs of the camera steady on marble floors, and he preferred to exercise a little ingenuity in overcoming these difficulties to increasing his *impedimenta*.

Mr. Maskell sought for information, and he received several answers in the course of the discussion, none of which, however, were very encouraging to him. He has a room about 15 ft. by 12 ft., the walls are covered with carvings of a brown colour, and the light was admitted by a window, covered with a lattice-work, at the opposite side to the door; was it possible to photograph that with any length of exposure? One gentleman suggested the removal of the lattice, another that a wall should be taken down for the occasion, while another pointed out that very little of a room of that size could be got on the plate.

Mr. G. Davison demurred to Lieut. Gladstone's distinction between upright and horizontal pictures in the matter of exaggerated perspective. The picture of the retro-choir of Wells was remarkably excellent, and it should be specially noticed. The great interest attaching to the paper showed how excellent a thing it was to take up one class of work and follow it regularly with an interest in it. There must be a great pleasure in following up the history of architecture, and if their particular bent were in that direction that would be the best way in which they could devote themselves to photography.

Mr. Lionel Clark wanted to know how the reader carried his large films; did he use carriers? The reply was that the reader used stripping films on a roller, and had never tried a carrier or cut film. In reply to a further question, he said that no doubt magnesium would be a good thing to light up the very dark corners of interiors, but he rather fancied that the authorities would object to its use.



Major Nott here added a word as to the excellency of stripping films for the purpose of interior photography, and suggested that if the soluble gelatine medium were a little thicker, there would be considerably less difficulty in the stripping. The best results he had obtained in interior work had always been on stripping films.

Mr. V. A. Corbould referred to an old friend, or enemy, rather, the ghost window, which, it was subsequently pointed out, was probably due to the reflection of a window which came within the angle of the lens, but did not appear directly on the plate. Some discussion took place on the question of backing plates, and the general opinion seemed to be in favour of glycerine with a colour pigment in suspension.

The Chairman agreed that wide-angle lenses required a great deal of discretion in the using. To prevent the legs of the tripod slipping, he put a bit of india-rubber tubing on the point of each, leaving about an inch to turn over; this he found effectual. The circular level he was disappointed with, as the bubble was always in the wrong place, so he fabricated a plumb out of a knitting needle, and that answered every purpose. If there were one thing of which the English might be proud, it was their cathedrals, and yet they saw less of them than anybody. That was a pity, because there was an almost unlimited range of choice and beauty to be found in them. By the way, he would like to see a pinhole photograph of an interior. He agreed with Ruskin that architecture was the climax of art, as it embraced painting and sculpture. Mr. Maskell suggested that a collection of photographs of monumental brasses should be made throughout the country. Lieut. Gladstone, in replying to the several speakers, said that in ninety-nine cases out of one hundred, the wide-angle lens should not be used, but that in the hundredth case it was absolutely necessary, or the picture desired could not be secured. When he spoke of direct sunlight being bad he meant when there were patches of bright light on a pillar. In the case of the crypt which they had seen, he was bound to stick lighted matches about to enable him to focus. It was a curious fact, but the picture Mr. Davison so much admired was taken with the widest-angled lens he had. He had not noticed any appreciable difference between stripping and rollable transparent films. The bubble in his level was not correct, but he knew exactly where it had to be when the camera was vertical. The beauty of the English cathedrals was great, and superior to anything they could see anywhere else.

## Notes from the Edinburgh District.

(By our District Editor.)

THE awards in connection with the Edinburgh Photographic Exhibition have not yet been issued. The jurors were to have met on Friday last to issue their adjudication, but owing to illness in the family of one of them, the meeting had to be postponed. It will be a week or ten days longer before they can be ready. This is a misfortune for the Exhibition, because as soon as the awards are announced there may be expected to be a better attendance. In an exhibition of photographs the public see so little difference between many of the exhibits that they feel at sea, but when it is authoritatively pronounced that certain frames are better than the others, then they can "mark, learn, and inwardly digest" what before was beyond their understanding. The other day I took into the Exhibition a gentleman from the country who knows little of photography and he was altogether nonplussed at the show. Some of the pictures he would scarcely be convinced were photographs at all, simply because he had never seen anything like them. That gentleman went home with a much higher conception of photography than he ever had before. Had he, however, visited the Exhibition alone, he would have left it with very mixed feelings indeed, not having known what pictures to look at, and even doubting whether some which he saw were really photographs. The sooner, therefore, the awards are out the better.

There is a magnificent show of bromide enlargements. Perhaps after the fine display of platinotypes, the best feature of the Exhibition is the bromides. The Hon. A. W. Erskine, of Bowscar, Penrith, contributes a series of three which are simply superb. His composition is faultless, particularly his "Mapledurham Mill," which is a fine study of still water with a sleepy old mill embowered among trees in the background. In his "Head of

Windermere" he has also selected his post with the eye of a true artist, a graceful birch-tree in the foreground making all the difference in the world to a view, lifting it from the common-place into the poetic. "On the Coquet" is also a beautiful composition by him. It is noticeable that Mr. Erskine presents his views entirely devoid of figures, which greatly increases his task of making a picture, and his artistic faculty is ever so much higher in his being able to do it. John M'Kean, Leith, in his "Shepherdess" and other pictures, shows a good faculty for composition, and so does Mr. T. G. Whaite, Carlisle; but I have selected these two gentlemen as exponents of a system of printing in bromide which is very different from that of Mr. Erskine. While Mr. Erskine's pictures are all of the pluckiest order, clear as daylight and in tones of the most faultless black and white, Mr. M'Kean and Mr. Whaite, particularly the latter, show their pictures with an indistinctness which to my mind does not improve them. The indistinctness of the naturalistic school I understand and sometimes appreciate, but this is different, as in it the whole view is overshadowed and there is nothing in the way of contrast such as you always find in the pictures of the naturalistic school. I have raised the question because I find a good deal of the same thing in pictures by amateurs. In the case of the gentlemen named I presume they have given the pictures the tone they have on purpose, in their desire for softness. I believe the others have produced what I look upon as the objectionable shaded, almost fogged appearance, because they could not help it. I have a fancy that the developer had something to do with it. I myself have observed it in prints developed with hydroquinone, although I have seen many hydroquinone prints which were quite clear in the high lights. A developer exhausted of some of its properties might do it. I have been told the hydroquinone improves the more you use it, which is perfect nonsense, and I just fancy there may be followers of that tenet among those to whose pictures I refer. The point is worth clearing up, because such productions as some of the frames in the Exhibition contain are not good examples of what the bromide process can do, and many might be discouraged from its use if they could not do better.

Mr. R. Hensleigh Walter, the managing partner of the Photoglyptic Company, Broadstairs Works, Causewayside, Edinburgh, was the lecturer in the Exhibition last Friday night. The Photoglyptic Company started work in Edinburgh a month or two ago, and claim to be the first out of London to practise the Woodburytype process. I understand they are doing a good business. Mr. Walter's subject was "Woodburytype," and though, by his slowness of speech, he did not shine as a lecturer, his subject was interesting. He described the process, and sent round for view the specimens which he printed in the lecture-room, all of which were excellent pictures. In the course of his lecture he stated that hitherto the only papers upon which Woodburytypes could be printed were the Rive or Saxe, papers of French and German manufacture, but that he had found a Scotch paper (manufactured by Cowan and Company, of Penicuik, near Edinburgh) to be in all respects suitable. This remark fired the attention of a gentleman who was present, a local paper maker well known to the literary world under the nom de plume of "John Strathesk" (Mr. John Tod, of Lasswade), and at the close of the lecture he had an interview with Mr. Walter on the subject. According to him, the great weight to which the paper is subjected in the process of manufacture has the effect of breaking up the fibre, and thereby destroying the grain which is the drawback to ordinary papers. The lecture was listened to by a large audience, presided over by Mr. H. J. Blanc, the President of the Edinburgh Photographic Society.

## Notes from the Liverpool Centre.

(By our District Editor.)

THREE Scotch newspapers to hand, the *Glasgow Herald*, *Glasgow Evening News*, and *Glasgow Evening Times*, each have a laudatory notice of Mr. Paul Lange's lecture, "Norway," which he gave in the large lecture hall of the Glasgow Philosophical Society last week. There were about 400 persons present.

Mr. A. J. Balfour, the Irish Secretary, in cordially accepting a set of six pictures from Mr. Lange, illustrating a phase in the golf tournament played a few miles from Liverpool some months ago, says, "I shall greatly value them."

Mr. J. Pattison Gibson's choice pictures are attracting a very



large number of photographers and "laymen" to the Liverpool rooms. The Society has wisely thrown the exhibition open, members passing as many of their friends to see the pictures as they like.

In the Birkenhead Y.M.C.A.'s new building, the new quarters of the Birkenhead Association, and which, by the way, are answering admirably, "The Hundred of Wirral" is to be repeated. The work, as may be well known, is by members of the Birkenhead Society.

Mr. Eadweard Muybridge has been amusing audiences on both sides of the Mersey recently with "Animal Locomotion" in its relation to design in art. Both gentleman and subject are familiar to photographers.

Owing to a series of untoward circumstances, the continuity of the practical demonstrations on lantern-slide making, etc., has been broken. Illness of gentlemen who were to "demonstrate" has been the chief reason of this.

## Exhibitions.

### LOUTH AND DISTRICT PHOTOGRAPHIC SOCIETY.

IN order to give a stimulus to the art of photography amongst the amateurs of the town, the members of the Louth and District Photographic Society decided to have an exhibition of their work in the Council Chamber, and this was held on the afternoon and evening of the 11th inst. The Mayor (Alderman James Fowler), who was accompanied by the Mayoress, opened the exhibition. The exhibits of the Louth members were supplemented by some from Mr. Gale, of London, and Mr. Armitage, of Nottingham. Mrs. Clarke showed illustrations of the application of photography to silk for domestic decoration, and gave some specimens of wall-pockets and hand-screens made of photographs on silk. Amongst the general exhibits of Mr. and Mrs. S. F. Clarke were frames of lantern-slides for which Mr. and Mrs. Clarke have been awarded several silver and bronze medals, micro-photographs which were awarded a diploma at Vienna, a certificate at the Crystal Palace International Exhibition, and two bronze medals, a picture entitled "What Love Hangs By," which received a medal at London and the first prize at a Belfast competition, a picture entitled "Fortune Telling," awarded first prize at Belfast. Amongst the group we noticed a very pretty picture, entitled "There is Nothing Half so Sweet in Life as Love's Young Dream." This is, Mr. Clarke considers, his best picture, and although it has not taken a prize, it has commanded great attention. Mr. Clarence James is a large exhibitor, and amongst his we noticed a number of portraits taken on rough drawing-paper, an entirely new adoption. In his group were three landscape views, which were awarded a silver medal at Kidderminster last March; a snow scene, awarded a bronze medal at London in 1888; and a portrait entitled "His First Model," awarded two medals a fortnight ago at Tunbridge Wells. A series of excellent pictures were sent by Mr. Armitage, of Nottingham, a frost scene being greatly admired by all present. Captain Ranshaw showed some photographs taken thirty years ago. The pictures sent by Mr. Gale, of London, were very handsome, "A Moonlight Effect" and "A Misty Afternoon" being especially charming. Amongst the other exhibitors were the Rev. C. W. Whistler, of Theddlethorpe (President of the Society), the Rev. H. W. Everingham, of Trusthorpe, Mr. Alfred Plaskett, Mr. John W. East, the Rev. J. M. Coates, Mr. W. P. Willey, Mr. Henri Perron, Geneva, and formerly at the Louth Grammar School, and Mr. G. H. Forman, the latter three of whom showed the productions of their "first year's work." The views, etc., were composed of bromides, platinotypes, and a few silver prints. There were various subjects and places illustrated, and on a careful survey one was reminded of many pretty "nooks and corners" of this part of the county of Lincolnshire.

### SOUTHSEA AMATEUR PHOTOGRAPHIC SOCIETY.

By C. ALFIERI, SEN.

AVAILING myself of a polite invitation from the Hon. Sec. of the Southsea Amateur Photographic Society to be present at their annual exhibition, I was agreeably surprised, on entering the club-room in which the exhibition was held, to see the walls and tables so attractively covered, and to notice so large a number of pictures of more than average merit. These included, firstly, contact prints on silver, platinum and bromide papers; secondly,

enlargements by any process; and thirdly, lantern slides. Silver and bronze medals were awarded for the best exhibits in each of the three classes severally. Beginning with pictures obtained by contact printing, "A Bridge, near Killierankie," "Mapledurham Mill," and "Urquhart Castle," by Dr. Ticehurst, ranked undoubtedly among the gems of the collection, the first-named subject possessing, independently of its breadth and harmonious balance of light and shade, an individuality and delicacy of tone irresistibly reminding one of the landscapes by Mr. F. Bedford, which adorned the exhibitions of nearly thirty years ago. The second picture referred to was somewhat marred, however, by a sky without even a suggestion of clouds. The pictures by Mr. F. J. Smith (winner of the bronze medal in this class), although of small size, were deservedly singled out for distinction by the adjudicators, two views in Dovedale especially being perfect in tone and artistic treatment. A series of six views, of various kinds, by Mr. R. Leventhorpe, were good examples of careful selection and effective lighting, his "Burnham Beeches" being his best effort, and his "Rydal Water," from a favourite standpoint, being scarcely inferior.

Among the works not honoured by any special distinction or notice by the judges were many interesting and meritorious productions. Among these, some charming little landscapes (bromide paper) by Dr. Lord, Hon. Secretary of the Society, attracted a good deal of attention; a river scene with a group of figures composed of a boy and two horses, and some views of Netley Abbey, being very effective and delicately printed.

There was also an excellent and well lighted interior of the new church of St. Mary, Portsea, by Dr. Newby; certainly one of the best pictures in the exhibition. Mr. A. W. Ward merits commendation for a little gem entitled "A Country Lane." This was also among the best of the unmedalled pictures. Mr. H. J. Hammond showed a number of capital rapid pictures of yachts and shipping. This year's exhibition, although not strong in enlargements, contained several very noteworthy examples, the best shown being Mr. J. J. Thornton's "Old Peggy," an elderly dame busy with her household duties, and surrounded by homely accessories, the whole composition being well thought out, and resulting in a very pleasing picture of cottage life. Two other enlargements by the same gentleman are scarcely so successful, from the evident distortion of those portions of the figures nearest to the lens, when the original negatives were made. Of two very good enlargements, 15 in. by 12 in. or more, by Captain Lamb, "A Jersey Lane" is preferable; both pictures would have been better had it been possible to secure more contrast.

"A Farm Scene, Sussex," a capital enlargement by Mr. C. Jurd, would also have been improved if the figure introduced had harmonised more perfectly with its surroundings. Among the landscapes with figures, for which it is to be regretted no special prize was given, were two or three very effective subjects, the special group entitled "Gossips" being a combination of pretty landscape, and attractive and naturally-posed figures, which was generally admired. Mr. C. Jurd's "Portsmouth Harbour" is a very good enlargement of an equally good original. The strong point of the exhibition, however, were the lantern slides, which embraced almost every variety of subjects—landscapes, architecture, seascapes, and domestic and wild animals, including even the lion. The silver medal in this class was awarded to Mr. R. Leventhorpe for a splendid selection, which was, perhaps, fully equalled by the excellent contributions of Lieut. Gladstone. On the whole, the Southsea Amateur Photographic Society are to be congratulated on their very successful exhibition, the pictures all being the work of members of an association of which Portsmouth has reason to be proud.

PYROCATECHIN.—One of our correspondents, hailing from Ludwigshafen on the Rhine, states that he has very good results with pyrocatechin, which is now so much lower in price that the cost is no greater than with pyrogallol. The formula used is very simple, and is as follows:—

Pyrocatechin	..	..	..	..	1 gramme
Carbonate of potash	..	..	..	..	10 "
Distilled water	..	..	..	..	60-70 c.cm.

the above being sufficient for a half-plate. The high price of pyrocatechin has hitherto stood in the way of its general use of even trial, but in the face of the results obtained by Dr. Arnold in the early part of this year, it is a developing agent well worth further examination.



## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BRECHIN PHOT. ASSOC.**—The new rooms of the above Association, at 14, St. Mary Street, were opened by the President on Tuesday evening, the 9th inst., in presence of a good turn-out of the members. The rooms consist of a fair-sized reading-room, which is also to be used for meetings, dark-room, in which benches have been fitted up and water laid on, cloak-room, etc. Mr. Adamson, the President, opened with a lecture descriptive of a tour "From Liverpool to the Yosemite Valley, by the Straits of Magellan," illustrated with lantern slides; and Mr. A. R. McLean Murray exhibited over fifty slides of the "Ruins of Pompeii," with which he intends to illustrate a lecture on that ill-fated city. Five honorary and two ordinary members were admitted, namely, (honorary) Messrs. J. S. Baxter, East Mill; D. Hunce, Barrelwell; Rev. H. Campbell, Careston; J. Simpson, coachbuilder, and Watson, Denburn Works; and (ordinary members) Messrs. W. Ferguson and Colin Hutcheon. Now that this Association has got a local habitation, they intend to further their objects by arranging to give hints to beginners in the art. Some of the older members are to meet the younger ones and help them by developing plates, prints, etc., and by giving instruction regarding exposure and the hundred and one little things that have to be attended to to make a successful photographer.

**BRIGHTON PHOT. SOC.**—A meeting was held on the 9th inst., and was a lantern evening. Mr. J. P. Slingsby Roberts presided, and presented the medals to the successful competitors in the 1889 and 1890 lantern-slide competitions, viz.:—1889, bronze, Mr. A. H. Webbing; 1890, silver, Mr. A. H. C. Corder; bronze, Mr. E. J. Bedford. A varied assortment of slides, the work of Messrs. Mitchell, Bedford, Corder, Patching, Webbing, Williamson, and Emery, and a selection kindly lent by Messrs. R. W. Thomas and Co. were passed through, the majority being of the very highest quality.

**DUKINFIELD PHOT. SOC.**—The ordinary monthly meeting was held on the 25th ult. After the usual business of the Society had been transacted, Mr. John Winterbottom (Treasurer) exhibited and explained his self-designed and constructed enlarging and reducing apparatus for enlarging from  $3\frac{1}{2}$  by  $3\frac{1}{2}$  up to whole-plate, or for reducing from whole-plate to  $4\frac{1}{2}$  by  $3\frac{1}{2}$ , or  $3\frac{1}{2}$  by  $3\frac{1}{2}$ . The apparatus was much admired, not as an ornamental but as a useful article. After the above the members adjourned to a large room to have a practical demonstration in "Flash-light Photography," the flash-lamps being worked by Messrs. Lees, Winterbottom, Hall, and Shirly. About thirty plates were exposed, the results brought in being very good. It is intended to hold an exhibition in February next.

**DUNDEE AND EAST OF SCOTLAND PHOT. ASSOC.**—At the meeting on the 14th inst., Mr. J. D. Cox (President) in the chair, the principal business of the evening was a lantern-slide competition, in which thirteen members took part, each contributing a set of six slides. The competition was decided by the votes of the members present. On the voting papers being scrutinised, the following were declared the prize winners:—First, H. S. Wybrants; second, D. Ireland; third, A. Stewart. A number of slides by the members, and a series of fifty from the Paisley Photographic Society, were then exhibited. Messrs. Lowdon, Reform Street, sent for exhibition a set illustrating the Stanley expedition for the relief of Emin Pasha.

**ENFIELD CAMERA CLUB.**—At the meeting on the 3rd inst., Mr. R. B. Lodge read a paper on "Naturalistic Photography." He said it appeared to him that people started with the assumption that what the human eye is capable of seeing is what the photographer should strive to represent. Apart from the fact that probably no two persons saw a landscape really the same, it was impossible to represent on a plane surface, such as a piece of paper or canvas, all the infinite variety and detail seen in any given landscape, and to give not only all the detail, but the relative strength, beginning at the distance; the result would be that the middle distance would be so strong that the foreground would not tell out against it. The reader then referred to the older art of painting, and said that artists would find it useless

attempting to paint the distance as strong as it could be seen; they merely suggest the distance, and keep the full strength for the foreground, by that means giving the effect of atmosphere to the rest. Mr. Lodge agreed with Dr. Emerson's writings, but disagreed with many of his published photographs; he considered great good had been done to photography, causing others to turn out better proof of the truth of his principles than he can himself. The reader also referred to Mr. Davison's work which obtained the medal at the Pall Mall Exhibition, and said that there was breadth, tone, atmospheric truth, and that it was a most beautiful picture without any undue sharpness anywhere, and yet nothing painfully out of focus. Mr. Lodge concluded by saying that it was impossible to make hard-and-fast rules about focussing a composition and the treatment generally of a subject; it entirely depended upon circumstances; in some cases sharpness and all possible detail was necessary, in others they would be fatal to success. Generally speaking, he himself had a strong preference for a subject which depended upon composition and effect for its beauty, not upon intricate detail, and pointed out that sharpness and detail were the easiest things to obtain; he granted that in the right place they helped to make a picture, but that they were not the chief points to strive after; on the other hand, it was extremely difficult to subordinate the distant parts of a picture so as to obtain the desired breadth and to give prominence to the foreground.

**GLASGOW PHOT. ASSOC.**—The opening meeting of the session was held on the 11th inst., Mr. William Lang, jun., F.C.S., President, in the chair. The lecturer for the evening was Mr. Paul Lange, President of the Liverpool Amateur Photographic Association, who described a tour in Norway fully illustrated with views taken by himself, and shown by means of the lime-light. Some very fine cloud pictures and hoar-frost scenes were also thrown on the screen, which were much admired by the audience.

**GLENALMOND PHOT. CLUB.**—The final meeting of this Club for the term took place on the 11th inst. The President took the chair at 9 p.m. The minutes of the last meeting having been read and confirmed, a spirited discussion then took place as to bringing friends to the meetings. It was finally agreed that each member could bring one friend, having given notice beforehand to the Committee. The President then said a few words as to the work of the Club during the past term. He then proceeded to demonstrate the working of a biennial lime-light magic-lantern which had lately been purchased for this college. A vote of thanks was then given to the President for his energetic assistance to the Club in general during the past term. The meeting then became general, for the usual inspection of members' apparatus and photographs.

**GREAT YARMOUTH AND EASTERN COUNTIES' PHOT. SOC.**—The monthly meeting was held on the 2nd inst. The President, Mr. H. D. Arnott, was in the chair, and, after the transaction of some business, a number of lantern slides were exhibited, the work of various members. The following gentlemen contributed slides:—Mr. Pechey 4, Colonel Shuttleworth 3, Mr. Waller 4, Mr. Springall 4, Mr. Rumbold 7, Mr. Liffen 7, Mr. Dunn 3, Mr. A. Price 4, Mr. H. D. Arnott 9, and Mr. H. Harvey George 12. Mr. A. Price, of King Street, will contribute a paper at the next meeting on the 6th of January, and no doubt, from his knowledge of the art and his long experience, it will be most interesting. A number of sample packets, sent by the Fry Company, were distributed among the members.

**HALTWHISTLE PHOT. SOC.**—The monthly meeting was held on the 8th inst. The American slides and lecture, "In and About Columbus," occupied the evening. Dr. Speirs read the lecture, and the Secretary manipulated the oxy-ether lime-light. The slides, if anything, were more interesting than the Boston set, owing to a better selection of landscape views being included, which are more appreciated than street scenes in general. The slides were considered, as a whole, very fine.

**HARLESDEN AND WILLESDEN PHOT. SOC.**—A meeting was held on the 9th inst., the President, Mr. J. Naylor, in the chair. Mr. Seed read a paper on "Elementary Rules of Art Applied to Photography." He urged his hearers to seek to obtain balance in all their pictures, and blend in one harmonious whole the scattered beauties of nature, so as to realize the highest aim of photographic art. He said anyone could erect a camera and expose a plate; but he who studied his subject in the light of artistic work and so produced what could be legitimately called a picture, could only be counted upon as a true worker in photography. Mr. Seed had a vote of thanks passed to him at the



conclusion of his paper, and promised to read the second part of the same at the next meeting. At the meeting on January 27th, Mr. Seed will give a second lecture on "Elementary Rules of Art applied to Photography."

**HEREFORDSHIRE PHOT. SOC.:**—A meeting of this society was held at the Mansion House, Hereford, on the 2nd inst., when the Hon. Secretary, Mr. J. Parker, demonstrated with his new lantern some interesting experiments in respect to bromide enlargements. The Rev. W. Bowell presided. Mr. Parker made enlargements from negatives showing a view of Rhayader and the "Grotto" at the White Hart, Broad Street, Hereford; and also executed some contact printing—one of the "Grotto," another of a view of Windermere, and another (on opal) of a design for a bridge over the river Wye, from the Castle Green to the Putson side. Mr. Watkins gave an explanation of his actinometer.

**HOLBORN CAMERA CLUB.**—At the meeting on the 12th inst., Mr. Luxton in the chair, Mr. Herbert Thompson demonstrated on the method of making lantern slides on Fry's plates. Three or four plates were exposed at different distances from the gas, and gave very good results. Members who had sample packets of Fry's manufactures brought up their results for comparison. The annual exhibition of the club is to be held at the latter end of February.

**LANTERN SOC.:**—At a special general meeting, held on the 8th inst., it was resolved that the entrance fee should be abolished, and members joining now are therefore only liable for the subscription. At the ordinary meeting held on the same night, a paper was read by Mr. J. G. Grenfell, F.R.M.S., on "Means of Protection amongst Animals." The paper, which was illustrated by some fifty slides, was of very considerable interest, the lecturer describing the various means adopted by animals for their protection in the great struggle for the survival of the fittest, some of the methods employed being of a most remarkable description, more especially in the cases of mimicry, where the animals reproduce the appearance of natural objects with such marvellous exactitude as to defy detection. The following are the arrangements for the meetings of the Society up to the end of February:—December 22nd, Lieut. C. E. Gladstone, on "Some Architectural features of Normandy and Brittany;" January 12th, Mr. E. M. Nelson, F.R.M.S., on "The Lantern and its Relation to Photography and the Microscope;" January 26th, Mr. C. Harrison, on "The Civilisation of Egypt and Assyria, as illustrated by its Physical Remains and Records;" February 9th, Mr. J. Traill Taylor, on "Lenses and Condensers for Lantern Work;" February 23rd, Exhibition of Lantern-Slides for members and their friends.

**LEICESTER AND LEICESTERSHIRE PHOT. SOC.:**—On the 26th ult. a conversation was held by the members of this Society at the Co-operative Hall, High Street, and was well attended. This was the first attempt at anything of this nature by the Society, which has been in existence for four years, and the members are to be congratulated on the thorough success of their undertaking. Several of the members showed selections from their work, which, taken as a whole, formed a very interesting and artistic exhibition of the various branches of photography. Among the photographs exhibited were those of Mr. G. Bankart, a fine collection of autotype and platinotype prints, of which "The Old Corporal" was specially worthy of note. Mr. T. Scotton, of Derby, showed a number of splendid views in the engine works of the Midland Railway, taken direct on the largest sized plates manufactured, and a faultless negative of one of the locomotives was exhibited. Mr. F. G. Pierpoint, in addition to prints, had several exhibits of interest, including transparencies, lantern slides, photographic lamp shade, and sets of apparatus. He also displayed a fine bromide enlargement (40 in. by 30 in.) of a view near Matlock, Bath. An interesting collection of figure studies was displayed by Captain Adeock, of Melton Mowbray. The other exhibitors were Messrs. S. S. Partridge (President), J. T. Cook (Vice-President), aristotypes and bromides; B. Ellis, F. Joliffe, Woodcock, J. Porritt, enlargements; A. Wilson, W. Taylor, S. Squire, and Frank Brown. During the evening a lecture was given by Mr. Walter D. Welford, on "Hand Camera Work," illustrated by a large number of slides from instantaneous exposures on almost every kind of moving object. Refreshments were provided and selections of music were given by a select band. Mr. Matherhead also placed on view a charming selection of works of art, antiquities, and objects of interest of foreign manufacture, which gave great pleasure to a constant succession of visitors to his table.

**LITERARY AND SCIENTIFIC INSTITUTION (PHOT. SEC.):**—The monthly meeting was held on the 10th inst., Mr. Frank Wilson, J.P., in the chair. Mr. G. E. Moser gave an exceedingly interesting and entertaining account of his experiences of "Photography at Sea." Having given sundry information as to apparatus, he next described the many various expedients resorted to to obtain a dark-room, how the water supply ran short, and the bath-room became transformed as only a photographer can realise; experience of printing, etc. The remarks were fully illustrated by upwards of one hundred and twenty lantern slides; most of these were North Sea views, though some few were snap shots of scenes amongst the Jews in the East of London.

**LIVERPOOL AM. PHOT. ASSOC.:**—The following is the prize list in the Members' Competition, 1890:—Lantern slides, 1st, Mr. Timmins; 2nd, Mr. Phillips, Mr. Sinclair. Whole-plate, 1st, Mr. Wilkinson; 2nd, Mr. Cleaver. Half-plate and under, 1st, Mr. Sutton; 2nd, Mr. Tyrer. Enlargement, 1st, Mr. Thomas; 2nd, Mr. Sutton.

**NEWCASTLE-ON-TYNE AND NORTHERN COUNTIES PHOT. ASSOC.:**—The ordinary monthly meeting was held on the 9th inst., Mr. J. P. Gibson in the chair. Five new members were elected. The new optical lantern which has been subscribed for by the members was in operation for the first time, and over 250 slides by various gentlemen put through. Nominations for officers for the current year were received, and the election will take place at the annual meeting in January next.

**NORTS AM. PHOT. ASSOC.:**—The 101st ordinary meeting of this Association was held on the 1st inst., Mr. S. Wells (President) in the chair. Mr. Leonard Allen was nominated for membership, and the following gentlemen were elected members:—Messrs. Zalasinski, Marsden, and Geo. Turner. Mr. Burrows gave notice of motion that the sons of members under eighteen years of age be admitted as members at a reduced subscription. Mr. H. M. Smith, of the Eastman Company, gave a practical demonstration on "Bromide Enlarging," using a No. 2 Kodak negative, and securing a splendid 12 in. enlargement. Mr. Smith also exhibited a No. 5 folding camera, which was thoroughly explained, and all present acknowledged the excellences of the camera, both for portability and the use as an ordinary camera. The society are now about entering into possession of more commodious premises, they having secured rooms more suitable for their requirements.

**PETERBORO' PHOT. SOC.:**—A joint meeting of the Peterboro' Photographic and Natural History Societies took place at the Museum on the 4th inst. There was an exhibition of photographs of local views contributed by Messrs. Taylor, Ward, Nichols, Perkins, and the Secretary. A large number of lantern slides were also shown by the aid of Mr. Pentney's lantern. The competition for the best lantern slides of three local scenes was also determined, Mr. Nichols being the winner.

**PHOT. SOC. OF IRELAND.**—An ordinary meeting of this Society was held on the 12th inst., Mr. George Mansfield, President, in the chair. Some queries from the question box having been dealt with, Mr. Greenwood Pim described how he photographed the "Book of Kells" in the library of Trinity College, Dublin, and exhibited some very beautiful prints, giving a great range of slides representing the varieties of colour in that celebrated book. At the conclusion of Mr. Pim's remarks, a debate on the "Management of Lantern Exhibitions" was opened by Dr. E. McDowell Cosgrave, which excited an animated discussion amongst the members present.

**SHEFFIELD PHOT. SOC.:**—The ordinary monthly meeting was held on the 2nd inst., Mr. B. J. Taylor in the chair. After the routine business of the meeting and the election of four new members, Mr. Smith, of the Eastman Co., explained their new No. 4 Kodak camera, after which he gave a lecture and practical demonstration of "Enlarging on Bromide Paper." There was a goodly number of the Sheffield Camera Club and Rotherham Photographic Society present by invitation.

**SOCIETY OF CHEMICAL INDUSTRY.**—The second meeting of the present session of the Liverpool section of this Society was held at University College on the 10th inst., Mr. A. Norman Tate in the chair. The papers and communications read were in connection with an important paper recently given before the section by Dr. F. Hurter and Mr. V. C. Driffild, entitled "Photo-Chemical Investigations." In this paper the value of the results obtained depended upon the accuracy of the means employed for the measurement of the densities of photographic negatives. The authors have employed a grease-spot photometer in their investi-



gations, whilst Captain Abney has used a shadow sector photometer for a like purpose. The first paper read at the meeting was communicated by Captain Abney on "Grease-Spot Photometer Measures," being read in his absence by the Secretary (Dr C. A. Kohn). It dealt with the comparative values of the results obtained by the different photometers, pointing out that the measurements with the shadow photometer, used under varying conditions, were consistent in themselves, whilst those obtained by Messrs. Hurter and Driffield were much higher in all cases. To prove the accuracy of his own method of measurement, Captain Abney exhibited some prints made in accordance with his own results. Dr. Hurter and Mr. Driffield followed with a paper on the same subject, in which they maintained the accuracy of their measurements, and pointed out by means of lantern illustrations the errors to which the sector photometer was liable. The same gentlemen also contributed a paper on "The Relation between Photographic Negatives and Positives," which was illustrated by a most instructive series of experiments in which the complete process of producing a perfect negative, measuring its density, and then reproducing a perfect positive picture by means of the results arrived at by their own investigations was demonstrated and explained to a large and appreciative audience. Mr. A. Watt showed an apparatus he had devised for the development of photographic plates without the use of a dark-room, based on development by time; and Mr. H. J. L. Rawlins exhibited a secondary negative he had succeeded in obtaining.

**STOCKPORT PHOT. SOC.**—The monthly meeting was held on the 10th inst., when nine new members were elected. The "White Mountains" slides were shown before about sixty members and friends.

**TORQUAY PHOT. ASSOC.**—A meeting was held on the 9th inst. A discussion on "Silver Printing and Toning," started by Mr. A. R. Hunt, M.A. (Vice-President), ensued. A series of prints toned by different formulæ were exhibited; also three prints of a jet of water, taken by means of an electric arc, in the ten-thousandth part of a second. Several ladies have joined the Association, which now numbers over fifty members.

**TOYNBEE CAMERA CLUB.**—At the meeting on the 9th inst., Mr. Geo. West gave a very interesting description of "Photolithography," practically demonstrating the sizing and sensitising of the transfer paper. He said he found that plate or un-sized paper was better to work with than the bank post generally used, owing to its lying flatter. He also showed that under-exposed prints would not take the transfer ink, while over-exposure caused a loss of detail. The working of the process

he was unable to show, there being no printing press at hand, but some very good prints were on view.

**WALLASEY PHOT. ASSOC.**—The annual meeting was held on the 3rd inst., Mr. Kite in the chair. The Treasurer's and Secretary's reports were read and adopted, and stated that twelve monthly meetings, including two lantern evenings, had been held, numerous papers read, and some successful demonstrations given, the membership roll amounting to about eighty. The officers for the ensuing year were elected as follows:—President, Colonel Cotton-Jodrell, M.P.; Vice-Presidents, Messrs. J. Gill and C. B. Reader; Treasurer, Mr. J. Fullerton; Auditor, Mr. C. Bullock; Secretary, Mr. G. G. Breeding, Egremont, Cheshire; and Council, Messrs. Sharp, Wilkinson, Varcoe, Priestley, Bardsley, and Gregg.

**WEST KENT AM. PHOT. SOC.**—The meeting was held on the 10th inst., the President (Mr. Andrew Pringle) in the chair. The business of the evening consisted of the reading of a paper by Mr. P. H. Newman, on "The Present Tendencies of Photographic Art." The paper was listened to with much attention. Mr. Newman has strong views upon the work to be done by photographers, and impressed upon his hearers that those who were striving to represent photography as the work of a painter were throwing away the substance for the shadow, and that it was much to be regretted that some prominent workers appeared to be content if these photographs resembled badly executed sepia drawings. Mr. Newman drew attention to the work of Messrs. Davison and Clark at the recent Pall Mall Exhibition, and condemned the use of rough paper; drawing comparisons between it and frescoes or scenic painting. He said that the texture of the paper was a matter of scale, and that it would be absurd to print a carte-de-visite portrait upon rough paper, such as had been used by several exhibitors at Pall Mall. The paper was most exhaustive upon photography of the present day, and the writer deprecated the idea that the photographer should be ashamed of his work being called "a mere photograph," and made the statement that, strive as he may, it was impossible, by throwing the lens out of focus, or using no lens, as in pinhole photography, to secure the feeling and expression given to a picture by the genius of a man's mind or the cunning of his hand, when using brush or pencil. The paper will doubtless be published in the photographic Press, and forms a most interesting and instructive essay. Messrs. Pringle, Shadbolt, and Hastings spoke in support of Mr. Newman's opinions, and the usual vote of thanks was passed. The remainder of the evening was spent in the exhibition by the optical lantern of the AMATEUR PHOTOGRAPHER 1890 Prize Slides, which were very fine and very much admired.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.

2. Write each Query or Answer on a separate sheet of paper.

3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.

4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.

5. The Editor does not undertake to answer questions by post.

6. In answering Queries, correspondents are requested to mention, in every instance, the number and full title of the query referred to.

## QUERIES.

4411. **Coloured Lantern Slides.**—I much want to borrow a few dozen for an entertainment at a

workhouse for some date between January 1st and 10th. I would, of course, pay all expenses, and take great care. Slides illustrating stories would be very acceptable.—**KAPPA** (address with Editors).

4412. **Distilled Water.**—Can anyone inform me if condensed steam from a pipe from an ordinary steam boiler will do for distilled water?—**R. B.**

4413. **Cloud Focus v. Equivalent Focus.**—Can any of your readers inform me whether there exists any fixed ratio between the "cloud focus" and the "equivalent focus" of a lens; as it would save much trouble in ascertaining the focal value of diaphragms?—**FRED DAVIS.**

4414. **Toning Aristotype Paper.**—I use Liesegang's formula for the combined toning and fixing bath. The first time I got a beautiful purple—better than I have ever succeeded in getting with any paper or bath. Next time I could get nothing but a reddish brown, and the bath took twice as long. Every succeeding time it has got slower and slower, and the colour continues reddish brown. It is said in the directions to get faster every time and to last several months. Should I filter it? I have added more gold, but with no effect. Can any one advise?—**T. T. S.**

4415. **Blisters on Prints.**—I have lately toned two batches of prints on Schöszig's double albumenised paper as follows:—Wash in three waters, the second having salt in it, tone with No. 17 formula in the "Dictionary of Photography," soak in salt and water and in two fresh waters, fix in 3 oz. hypo to the pint with some ammonia, and I find that the prints blister in the fixing solution, and continue to do so in the washing after. Can Mr. Wall or any one help me? I never before had blisters, using either the acetate, borax, or bicarbonate toning baths, without any salt in the waters.—**H. F. C.**

4416. **Thin Negatives.**—Will some one kindly tell me the cause of thinness in either over or under exposed plates? Is it due to the emulsion? Also if the hydroquinone developer causes prints to peel? Have tried all remedies for stopping peeling. Would carbonate of soda act as well as caustic soda?—**T. W. B.**

## QUERIES UNANSWERED.

Oct. 3rd.—No. 4217.

17th.—Nos. 4239, 4250, 4260, 4261.

24th.—Nos. 4268, 4270, 4275.

31st.—No. 4297.

Nov. 7th.—Nos. 4310, 4312, 4314.

14th.—Nos. 4330, 4332, 4334, 4337.

21st.—Nos. 4343, 4345, 4354, 4357, 4361, 4362,

4384, 4387, 4389.

28th.—Nos. 4370, 4375, 4377.

Dec. 5th.—No. 4400.

12th.—Nos. 4405, 4407.

## ANSWERS.

4363. **Tripod.**—Lancaster's "International" three-fold stand is a good one. Price, whole-plate size, 15s.—**D. NICOL.**

4355. **Lamp for Dark Room.**—Lancaster's "Rubra lux" is a good lamp. It has ruby and canary glasses, which may be used separately or together. Price 7s. 6d. Can be obtained at most photo dealers.—**D. NICOL.**

4404. **Hand-Camera.**—Lancaster's Instantograph will do very well for hand-camera if you enclose it in a box. You can fit view-finder in box; but be sure that the view on ground-glass and the view-finder coincide.—**LE ROI.**

4405. **Aristotype Paper v. Celerotype.**—Celerotype has with me given the best results, especially with weak negatives. The working is the same as with Aristotype. The finest enamelling can be produced with chalk and glass without wax.—**SAXON.**

4405. **Aristotype Paper v. Celerotype.**—Celerotype is the best; but requires rather different treatment than Aristotype. After Christmas, by permission of the Editor, I hope to give some notes taken by me during the time I have used Celerotype.—**WILLEE.**

4408. **Enlarging Apparatus.**—I have inspected nearly every enlarging apparatus on the market, and I find there is none like Hume's for efficiency in



any size, more especially half-plate, which will do for quarter-plate. The results are perfection. You can have it fully explained at his agent's office in Soho Square, N.—NABOHAFT.

4409. **Presto Hand-Camera.**—I have seen some capital work done with the Presto camera, and think it is very good for the money, and fairly reliable.—LE ROI.

4410. **Sulpho-Cyanide of Ammonia.**—Yes. Hydrocyanic acid is formed by the decomposition of the cyanide compounds mentioned. The "Dictionary of Photography" is wrong in stating that ferro-cyanide is non-poisonous.—ANALYST.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING'S post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT:

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

E. J. R.—Try the instantaneous lens, No. 19, of the second firm. There is no chemical to replace hypo. The exposure outdoor would be about half that required here, but for interiors there is no rule. We should advise the use of an exposure meter.

W. C.—The stains are probably due to an acid fixing bath. Add  $\frac{1}{2}$  oz. of carbonate of soda to every pint of fixing solution.

X.—(1) The price is certainly high, but we do not know the magazine, and, therefore, cannot express an authoritative opinion. (2) If you keep the bottles well corked there would be no reason why the chemicals should not keep.

AN A. P. FOGGED.—(1) Have you filled the bottle with scrap paper? If not, add 100 grs. of chloride of silver, and then try. (2) Obernetter's is the only brand—from Gotz, 19, Buckingham Street, Strand. (3) The deposit is probably lime from the water; try bathing the plates in sulphuric acid  $\frac{1}{4}$  oz., chrome alum 1 oz., water 20 ozs.

H. S. W. E.—The patchiness is probably due to your not soaking the print sufficiently long in plain water before applying the developer, also to not rocking dish. Develop the plates till there is no white on surface and high lights show strong on back.

R. G. RICHARDSON.—(1) Your only plan is to add more sulphurous acid to the developer; it is not a suitable developer for lantern plates. (2) The fault is in the ground-glass; replace this by flashed opal glass ground on the flashed side, and there will be no difficulty of even illumination, the light should then be kept in one position.

FRANKY.—(1) Reduce the amount of metabisulphite to half, and then allow negative to develop as long as it will. (2) In working with silk, it is very important to wash prior, toning very quickly, and change the waters as quickly as possible; try washing in salt and water also. (3) You do not state what size lens you use, quarter or half; the ratio apertures seem about right, however.

F. R. BALL.—It looks very much as though the paper was old, but you give us no information as to age or composition of developer, on which much depends. Were your dishes clean, or had they been used for pyro? All the prints are much too flat and the foregrounds are of no interest, and an inch could be cut off each without losing anything; both 1 and 2 could be made pictures.

J. W. WESTERN.—(1) Fully exposed; camera was not level. (2) Fully exposed. (3) Slightly under-exposed. (4) Well exposed. (5) The best so far. (6) Over-exposed. (7) An interesting study of backs. (8) This is good, but could you not have cut out some of the foreground? Pleased to see you any Monday.

LYELL.—We have fully explained in "Our Views" that in the competition, "Seven Ages of Man," the text, from "As You Like It," is only to be used as a guide to the ages, and not to be followed literally.

H. HOLT.—Your letter shall have our attention. CHARLES C. MACKLEY.—The hotel keeper in this case can, of course, ignore the conditions, and so shall we.

JOHN FRASER.—We really cannot go outside the conditions of our "Monthly Competitions," and certainly cannot select one out of two photographs sent by a competitor. Hence yours were both returned.

A. H. C. CORDER.—No. 18 "Monthly Competition" has been booked for the date named. We cannot undertake to criticise the slides sent to our "Lantern Slide Competition."

CHAS. ALFIERI.—We publish your notes with much pleasure, and gladly recognise your kindly interest in the AMATEUR PHOTOGRAPHER.

A.L.G. BROOKER.—Shall hope to send off the 1890 slides on Saturday in good time.

ALERTS.—We really cannot undertake to criticise the slides sent to our recent Lantern Slide Competition. If we did it in one case we must do it in all. Shall be glad of the paper, but could not publish in next issue of the Reporter as we have so much in hand.

W. T. TUCKER.—The print duly reached us, and will be criticised in due course. Many thanks for the analysis of lenses used by competitors; it is very interesting and proves how useful the information given must be to buyer and seller. Glad to hear you are entering for the "Seven Ages of Man."

AN AMATEUR PHOTOGRAPHER.—We are not concerned in the matter of the "Pastel Portrait Company;" to us the thing speaks for itself, and we should advise those of our readers who may receive circulars, to serve them as we are obliged to some of communications—place them in the w. p. b.

R. T. FRY.—A thoroughly first-class apparatus for enlarging with your own camera, without condenser. It can also be used for reducing. Should advise you to write to the maker.

DOUGLAS AM: PHOT: SOC:—Few men are unanimous as to the artistic merit of a photograph, but we thank you for the letter received.

FRANCIS G. SMART.—Your letter has given us much pleasure.

DR. RINGROSE ATKINS.—Very glad you did not consider our criticism out of place or harsh, and that you hold our remarks in such high esteem.

JOHN CRAIG.—Plates in the following order—3, 2, 1, 5, 6, 4; lenses—1, 2, 3, 4, 5, 6; all first-class instruments. We believe they advise the latter.

H. PERCY HOLMES.—Competition entry forms sent on. Your suggestion shall have consideration.

T. C.—Certainly. Read the leader in this and last week's AMATEUR PHOTOGRAPHER.

G. W. B. WATERS.—The print has been duly received and adjudicated upon. Sorry it was not acknowledged.

T. S. MAYNE.—Many thanks. It will be published next week.

THOS. GLAZEBROOK.—Certainly; it will be accepted as your own work.

ICONOCLAST II.—Will reply next week.

MISS M. BLURTON.—We do not consider you would forfeit the right to be called an amateur.

B. A. T.—You would have obtained much better results by using a smaller aperture and focussing rather more sharply. Your oxalate solution is too weak, and you may consequently get yellow deposits in your prints. Make it 2 oz. in 6 oz., and use 1 of iron to 5 of oxalate.

E. A. ALLINGHAM.—Thanks for your letter. The light or its actinism varies so much that we purposely refrained from giving a decided exposure, but have done so this week. Fog gives some very artistic effects sometimes. With the four-legged donkey subject, we should be inclined to put it considerably nearer, even in a country fog, say 25 feet. You have in your idea all the elements of a picture if well carried out. A moment's consideration will at once show you that  $\frac{1}{4}$  or  $\frac{1}{2}$  of the exposure required in summer is not reasonable, the loss of actinism, even with a brilliantly sun-lit snow being considerable. We should like to see your picture if you make it. All good wishes.

ROCHDALE AMATEUR.—A rapid rectilinear is the best all-round lens, and we should advise No. 1.

CONSTANT SUBSCRIBER (Lincolnshire).—We should say B, and you cannot get a better camera for the money. We have used one for some time with great satisfaction.

G. EMERY.—Your work is extremely unequal in merit. (1) An exquisite bit, though print slightly too dark. We have sent you one of same spot, only reversed. (2) Another lovely little bit. (3) Fair. (4) Very good; plate very fully exposed. (5) More can be made of this spot than you have done. (6) Good; plate over-exposed, and suffering from halation. (7) Poor. (8) Poor. Such work as 1, 2, 4, and 6 would run some of our monthly competitors hard. You seem to have suffered from halation, and we would suggest your backing your plates for the future.

W. HERBERT.—If you continue on the same lines as in some of the prints you send, we shall hope to welcome you as one of our medallists ere long. (1) Fair; slightly over-exposed. (2) Good. (3) A very difficult subject well done. (4) You have spoilt this by cutting off the top ornament of moulding; otherwise exceptionally good. (5) Over-exposed, and something, either print or camera (the former we fancy), has moved, and given you double outlines. The figures are too much posed. You had a chance of a good picture here with the shed and cart, etc., on right. (6) Good. (7) Good. (8) A pretty bit well treated; but the figure was hardly wanted. (9) and (10) Both very good. (11) Much over-exposed.

X. Y.—(1) The best developer we know is:—  
Sulphate of iron... ..  $\frac{1}{2}$  oz.  
Nitrate of baryta... .. 1 "  
Water... .. 1 pint.  
Alcohol... .. 1 oz.  
Nitric acid... .. 40 drops.

(2) Do you mean collodion or printing positive

work. Ask our publishers for their list of photographic books. (3) A good rectilinear lens for general work, or, if you intend to confine yourself to portraiture, get a portrait lens.

JOHN CAMPBELL.—We are sorry to have hurt your feelings. This was certainly not our intention. What we intended to convey was that your prints did not, to our mind, quite carry out the titles.

E. WINN.—You should have stated the colour of flowers and of markings. Use a medium rapidity colour-sensitive plate. Give a fairly long exposure, and commence development with a minimum of pyro, as suggested in our leaderette on developing snow pictures. Keep your negatives rather thin. Personally, we should use eikonogen for such a subject.

H. S.—The fault you complain of is a frequent one with such lamps when used for enlarging. The only plan we can suggest, as you cannot alter the respective distance of lamp and condensers, is to insert behind the negative a sheet of flashed opal glass, ground on the flashed side; this will reduce, but even, the illumination. Have you tried the plan of curving the paper, as suggested in our "Correspondence" columns a week or two back.

F. J. S.—We can hardly understand your lens giving such results on testing, as we have used one of these lenses for some time with excellent results. Can you forward us the lens? when we will examine and communicate with the makers.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus, etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send report a within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

**N.B.**—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a member, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

**Cameras, etc.**—Beck's hand-camera, with Eastman's roll-holder, cost £12 12s.; price £3; approval.—No. 87, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Sands and Hunter tourist camera, 13 by 18 centimetres, three double backs, waterproof case, tripod; £8. If desired, Eastman roll-holder to fit; £2.—E. P., 34, Upper Baker Street, London.

Camera about 15 by 12, cloth bellows, rising and cross fronts, strong tripod with 6 in. triangle, with single slide and carriers, price £1 10s. cash; also Stirn's detective camera, cost 30s., price 15s., nearly new, perfect.—J. Swanston, Meadowbank House, Polmont, Stirlingshire.

Stirn's detective camera, with plates, 16s.; 3 half-plate mahogany dark slides, 16s.; 4 wick Newton's lamp, 16; lantern aphegescope, with lens, 15s.; 5 by 4 Lerebours lens; 15s.; 6 sheets chromos, for making lantern slides, 18s. Griffith's detective camera wanted.—B. Mansel, 24, Bilton Street, Wolverhampton.

**Cameras, Lenses, etc.**—Boys' camera (maker, Skinner), lens, stand, slide, complete; specimen photograph sent; price 5s.—Reaney, South Shore, Blackpool.

Bargain, Gem camera and slide, six lenses, 20s.; iron head-rest, 5s.; other accessories cheap.—A.



Bracy, Northcote House, Frant Road, Thornton Heath.

Fallowfield's Special camera, 7½ by 5, with 1 double slide, carriers for half and quarter, cost £4 10s.; Optimus rapid Euryscope lens, cost £4 14s. 6d.; 2-fold tripod, cost 28s.; will sell the set for £5 5s., a bargain.—Thomas Usher, Pates Cottages, Holywell, Backworth, Newcastle.

Excellent double extension 5 by 4 square camera, parallel bellows, modern, with all movements, lens, and double back, cash 29s., bargain, Stirn's Vest camera, perfect order. 10s. 6d.—T. Mercer, 16, King Street, Sparkbrook, Birmingham.

Etching.—"A Foregone Conclusion," signed artist proof, by Alma Tadema, published at £5 5s.; price 30s.—John Stabb, 139, Queen's Road, Bayswater.

Lamp.—Perken's triar gle-shape dark-room lamp, only used twice; approval.—Allen, Pyrmont, Barber Road, Sheffield.

Lantern.—Optical lantern, of the very best make, in splendid condition, equal to new, mahogany body, 4 in. condensers, and French portrait lens, fitted for gas or oil, best blow-through jet, three-wick lamp, limc-holder, etc.; lowest price, £5; cost £10; deposit and approval.—K., Thorndale, Worple Road, Wimbledon.

Lantern Slides.—Large collection superior lantern slides for sale cheap, or exchange.—Copeman, Henstridge.

Six dozen Continental views, photographs; will sell, or negotiate for superior half-plate camera and slides.—Write to "Lantern," Mrs. Wilson's, Newsagent, West Hartlepool.

Lenses.—Quarter-plate Euryscope, 25s.; half-plate ditto, 55s.; both working at f/8, with stops, as new.—H. Rowe, Wallbridge, Stroud.

Half-plate rapid rectilinear lens (by Mattioli), fitted with Mattioli's patent Iris shutter, giving exposures from 1/10 of a second upwards, pneumatic release, and revolving diaphragms, assold by Messrs. Shew and Co. for £5 10s.; will take £3 10s. cash.—M., 20, Belsize Crescent, N.W.

Dallmeyer's half-plate triplet lens, good as new; 50s.; cheap.—H. Cooke, 3, Weekday Cross, Nottingham.

Lens, 5 by 4 R.R. (by Perken, Son, and Rayment); will take 28s.; bargain, quite new, with stops.—A. Coote, 239, Tooley Street, S.E.

Negatives.—For sale, 19 quarter wet-plate negatives, paintings from "Graphic," for making lantern slides from; 9s. 6d.—Hampton, 17, Sandwich Street, Burton Crescent, Euston Road.

Screen, etc.—9 ft. screen and elevator; 25s.; or offers.—Photo, Heyside, Royton, Oldham.

Sets.—Lancaster's 1890 quarter-plate Instantograph camera, fitted with rapid rectigraph lens, pneumatic shutter, five double slides (in case), splendid set, tripod cloth, magnesium lamp, vignetting frame, plates; lot 70s., bargain; appointment, no cards.—Charles Howard, 55, Percival Street, Clerkenwell.

For sale, a quarter-plate outfit, consisting of bellows-body camera, rack adjustment, double swing-back, three mahogany dark-slides in portable case, rapid rectilinear lens, six Tylar's metal dark-slides, with adapter to fit camera; the lot £4.—J. W. Lumley, Dentist, Kirbymoorside R.S.O.

Dissolving-view apparatus; exchange for half-plate camera and books.—A. D. Clarke, Pailton, Rugby.

Two-fold quarter or half tripod, mahogany, perfect, 5s.; scales and 13 weights, glass pans in box, 2s.—Tooth, Stephen Street, Rugby.

## WANTED.

"Amateur Photographer," etc.—AMATEUR PHOTOGRAPHER, vols. i., ii., iii., iv.; "Photographic Reporter," Nos. 1 and 2; must be clean.—C. Cobb, Hughenden, Berylands, Surbiton.

Lantern Slides.—Loans of 50 good lantern slides (scenery or nursery tales), in exchange for which will lend 50 others of best quality, majority being views of Footland and Lake district.—H. Clark, 51, Cromwell Avenue, Highgate, N.

Lens.—12 by 10 rapid rectilinear lens, by good maker, Swift and Paragon preferred, cheap for cash.—E. W. Brown, 210, King's Road, Kingston-on-Thames.

Lens, etc.—R.R. whole-plate lens, square bellows-body camera and stand, also burnisher or rolling press, cheap; or exchange for half-plate 1890 Instantograph and stand, and 7 by 5 Optimus R.R. lens and cash.—No. 88, AMATEUR PHOTOGRAPHER office, 1, Creed Lane, London, E.C.

Magic Lantern, 4 in. condensers, 3-wick lamp; state maker and all particulars, also lowest price for cash; approval.—10, Albion Street, Miles Platting, Manchester.

Negatives.—About half a dozen good cloud negatives, half plate.—Kirby, Chemist, Northampton.

Sundries.—12 by 10 double back, book form, perfect condition, and must be cheap.—Letter: Walker, 60, Norcott Road, Stoke Newington.

Wall's "Dictionary of Photography," cheap; also "Photographic Reporter," monthly.—Copeman, Henstridge.

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**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the *Amateur Photographer* are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

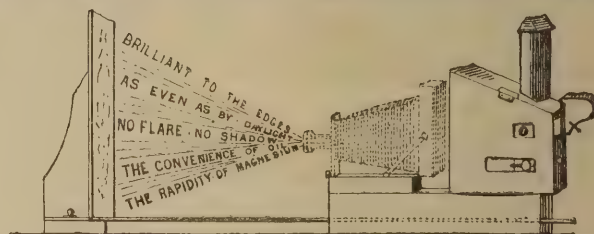
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**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

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VOL. XII. No. 325.]

FRIDAY, DECEMBER 26, 1890.

[PRICE TWOPENCE.]

## OUR VIEWS.

"To hold as 'twere the mirror up to nature."—*Shakespeare.*

WE publish elsewhere conditions of the AMATEUR PHOTOGRAPHER Monthly Lantern Slide Competitions which will be held during the first and last four months in the year. It is proposed to have an exhibition of the slides on the Monday evening immediately after the day they are received, and under certain conditions it is proposed to admit competitors and others. The slides will afterwards be at the call of photographic societies and others. At the close of the fourth competition the conditions of the 1891 Annual Lantern Slide Competition will be published, and four months will be allowed for the competitors to prepare their work; this will enable us to have the 1891 prize slides ready for circulation by about the end of September, so that they will be available for the whole season.

WE have several other novel features for the New Year which will be announced in our next issue.

In regard to lantern work, it is gratifying to find that the talented editor of the *Review of Reviews* has found so much in the article by Mr. C. H. Bothamley, F.I.C., F.C.S., etc., published in a recent issue of the *Photographic Quarterly*, "The Optical Lantern as an Aid to Teaching," that he has schemed a "Magic Lantern Mission," and introduces his proposal in the following words:—

"Photography and the Magic-Lantern seem destined to revolutionise education, and to afford immense reinforcements to religion. Between them they are going to democratise sects, to educate the masses, and contribute quite unexpectedly to the evangelisation of the world. The article which I re-published in an early number of this REVIEW from the *Photographic Quarterly* set me a thinking. There is evidently a new departure in education. If the lantern can be used in the full light of day, and photographic reproductions of every visible—almost of every invisible—thing can be thrown vividly before the eyes of the student, what a change does this not portend! No doubt in science teaching this change will be more easily effected. It is so obvious an advantage to be able to throw upon a screen, a thousand-fold magnified, before the eyes of a whole class, the exact picture of the microscopical infinitesimals, the varying fortunes of whose continual warfare make the difference between health and disease. Diagrams cannot for a moment compare with the slides. They are few, costly, and comparatively invisible. The schoolmaster who is now abroad must carry a magic-lantern instead of a ferule, and deliver his lessons by the aid of a great white sheet on which the wonder-working lens of light prints an endless succession of fresh pictures to stimulate the mind of the scholars. The use of the lantern as an educational appliance is growing, but it is as yet in its infancy. The time is coming, however, when a school without a lantern will be as absurd an anachronism as a school without a slate or an inkpot."

Here we have another very useful outcome of an article published in the *Quarterly*. Mr. Stead will be glad of help, and hundreds who read this paper can lend a helping hand in furthering the education of the masses by means of the optical lantern. We strongly advise our readers to make themselves acquainted with the whole scheme by purchasing a copy of the Christmas number of the *Review of Reviews*.

At a meeting of the Society of Arts, which was held on the 17th inst., under the presidency of Mr. Cobb, Mr. G. Davison read a temperate and judicious paper on "Impressionism in Photography." The reader went over the whole ground at considerable length, but the following extract will give a fair idea of the position taken up, and the mode of treatment:—

"Naturalism, then, instead of signifying indistinctness and eccentricity, as is not uncommonly supposed, purports to be the gospel of common-sense, scientific inquiry, and culture in art. It leaves its advocates free to express themselves about what is going on in the world by means of their graphic art, without other trammels than a severe regard to truth, naturalness, and perfect expression. The naturalistic painters find the possibilities of all poetry in nature; it is truthful representation, perfect expression, that constitute their art. They hold that what is seen should be painted, that symbolism and imaginative creations can have but a feeble interest, and that what we have actual contact with in life affords opportunity for the most powerful expression by graphic art of any abstract quality. It is in the life of to-day, and not in the illustration of other people's ideas, whether past historical subjects or so-called works of imagination and allgory, that the proper province of the painter's art is to be found. To be true, and living, and moving to our sensibilities, the scenes and subjects depicted must be studied directly from nature by the artist."

The discussion was continued by Messrs. Dallmeyer, A. Maskell, Debenham, John Leighton, and Newman, whose views on this subject are well known to our readers, and will further be placed on record in the journal of the Society.

We must, however, refer to the speech of Mr. J. F. Moulton, F.R.S., who prefaced his remarks by the statement that not being either a photographer or painter, he did not care what *means* were used to produce a picture, but he had the keenest appetite for the *effects* produced. He was certain that a man did not get nearer nature by blurring a good picture. People did not see things blurred unless they were short-sighted, and then they got spectacles to restore their sight. But, on the other hand, when he looked at the old photographs, they did not seem to be the



right thing; there was an oppressive accuracy about them which he did not see in nature. We did not see things blurred, but we did under-rate the sensitiveness of the eye, which was unable for long to see the strong contrasts between light and dark without their being softened by the partial paralysis of the optic nerve. The old photographs were too faithful in reproducing the contrasts of light and dark. But the merely blurred photograph was not what was seen in nature. The lecturer and those who sympathised with him were to be applauded for trying to break through the trammels, and he would suggest that they should go on studying the art of all ages, and working till they felt they were nearer producing the effects given by the older art.

—♦♦♦—  
We notice that Mr. A. R. Dresser (Bexley) gave an exhibition of lantern slides on the 17th inst. at the Metropolitan Tabernacle in aid of the Christmas Dinner Fund got up every year by the Rev. C. H. Spurgeon. This is an instance of photography helping a good cause.

—♦♦♦—  
THE programme of the twentieth course of free lectures to be delivered in the Rotunda Lecture Hall, Liverpool, is before us, and in it we recognise many friends of photography who are to lecture. In nearly every case the oxygen lantern is called into requisition. The lectures are given on Tuesdays, Wednesdays, and Thursdays, and commence on the 6th prox., and terminate on the 9th of April.

—♦♦♦—  
THE following extract from a letter shows the appreciation with which the 1890 slides are being received:—"Some were demanded again and again, and at twenty minutes to eleven, when the oxygen gave out, we had barely got through the first two boxes. I trust you will be able to lend us the set on a future occasion."

—♦♦♦—  
ON the 12th inst. we called attention to the probability that the Committee of the Camera Club intended, with the consent of the members, to increase the Club dues; this will come into operation after the 1st of January, when the subscriptions will be:—

Town members	..	..	..	£5	5	0
Country "	..	..	..	2	2	0
Foreign "	..	..	..	1	1	0

An exception will, however, be made in favour of the first one hundred members proposed and elected after the 1st of January; for these the town subscriptions will be £4 4s.

Those of our readers who may be intending to join the Club are reminded that if they are proposed before the 1st of January, the Club dues will be £3 3s. town, and £1 1s. country.

—♦♦♦—  
We hear that the Club of Amateur Photographers in Vienna recently held an exhibition of lantern slides for the benefit of children's sea-side convalescent homes. There was an attendance of more than 1,200 people, and it was a marked success.

#### —♦♦♦— SNOW SCENES.

THE most suitable printing process for the reproduction of snow scenes is one which will reproduce as nearly as possible the actual tints of nature, and as most of these tend to the black and white variety, such processes as platinotype, bromide, or matt-surface gelatino-chloride paper toned to a deep black are certainly the best. Personal taste will be an important factor in deciding this question,

but there are certain rules which cannot be transgressed without sacrifice of true-to-nature effects. In the first place, for snow scenes, a polish like patent-leather boots is not advisable—matt-surface prints are infinitely superior, and, provided the negative is full of detail, and this is not lost in printing, exquisite results can be obtained either by printing-out or development papers. With bromide paper a rough-surface paper should be used, and a fairly long exposure be given near a gas burner, and development should be effected either by means of eikonogen or a weak ferrous-oxalate developer, so as to obtain soft grey pictures full of detail. By "a fairly long exposure near a gas burner" we mean that the exposure should be full, and that the printing frame should not be more than eighteen inches at the outside from the flame, this being adopted in preference to a longer exposure at a greater distance. Excellent and artistic results can be obtained on ordinary matt-surface or plain paper, but as there is a tendency to loss of detail, we prefer a matt-surface emulsion paper and deep printing, and the use of a combined gold and uranium bath, so as to avoid very warm tints. And this brings us to another important point, and that is, the paper, whether albumenised or gelatine emulsion, must be absolutely free from any tint; pink or mauve snow is not artistic, neither is it natural. We have just received a capital little view in Wanstead, printed on matt-surface chloride paper, which has been kept long enough to turn yellow, and a very good effect has thus been obtained, which gives one very much the idea of a yellow fog coming on. We have also seen a very good result from printing through two negatives, taken from exactly the same standpoint, and then, when developed, fixed and dried, carefully superimposed, fastened together, and printed from; there was a very natural look about the print thus obtained.

The final question of mounting also requires some attention, and the frame, when looked at as a whole, should have the highest whites in the picture; absolute pure whites are none too easy to obtain in prints, and therefore they should not be killed by an obtrusive white mount. Delicate grey or tinted cut-out mounts with, if desired, a gold bevel are far superior to the ordinary mounts, and a capital pair of pictures may be made from a summer and a winter view of the same place.

We have been asked to give precise particulars as to the exposure for a snow scene. It must be clearly understood that the conditions of light vary so much that it is almost impossible to give such particulars, but on the principle of "exposing for the shadows," and reduction of contrast, which we have worked for all along, the following data are given as an approximate guide: Lens aperture,  $f/8$ ; mid-day, brilliant sunshine; plates, 18 deg. Warnerke; principal object, or a heavy shadow, or a dark tree trunk, ten feet from camera; we should be inclined to give at least  $1\frac{1}{2}$  to 2 sec. exposure, but with a regular grey sky we should give 8 to 10 sec. without any hesitation.

—♦♦♦—  
"THE DICTIONARY OF PHOTOGRAPHY."—Mr. E. J. Wall writes:—Will you allow me to contradict the positive assertion of "Analyst" in answer 4,410, where he states that "The Dictionary of Photography" is wrong in stating that ferrocyanide is non-poisonous. If he will turn to page 148 of the first edition, he will find that I say "the salt is non-poisonous of itself; but as a deadly poison can be easily prepared from it, care should be taken in its use." It was a standing joke in my student days that an examiner on therapeutics or chemistry asked a student why a man who had swallowed some ferrocyanide of potassium was not poisoned, and if the unfortunate youth did not know, the answer given by the examiner with great glee was, "Because he was as big a fool as you, sir, and should have swallowed some acid and sat upon the fire to set free the hydrocyanic acid."



## Negatives and Positives.

THOSE of our readers who are interested in dramatic and other arts will learn with satisfaction that (according to the *Echo*) "a life-size statue of Mr. Henry Irving has been placed in the Art Gallery at the Guildhall. It was presented to the Corporation by the sculptor, Mr. E. Onslow Ford, A.R.A. The figure is seated and in the character of Hamlet."

It is a matter of congratulation to the nation at large that this illustrious disciple of Dædalus should have exercised his talents upon the chief of Melpomene's exponents, and that too when personifying that ever favourite character, Hamlet, the creation of which alone would have been more than enough to stamp the genius of Shakespeare for all time.

THIS reminds us that (according to the same source of information) Professor Herkomer has been commissioned to paint a portrait of the late Canon Liddon for the hall of Christ Church, Oxford.

It is now twenty years since Professor Ruskin said, in his inaugural lecture at Oxford, "We can do much that others cannot, and more than we have ever yet ourselves completely done. Our first great gift is in the portraiture of living people—a power already so accomplished in Reynolds and Gainsborough, that nothing is left for future masters but to add the calm of perfect workmanship to their vigour and felicity of perception."

Those who have studied the masterly portraits painted by Professor Herkomer and shown in the Royal Academy during recent years, will feel satisfied that portrait painting is a branch of fine art wherein the English artists are distinctly prominent and pre-eminent.

It is difficult to imagine any place which has not been invaded by the camera. We understand that the Prussian authorities are arranging that all unidentified corpses, either found or washed ashore, are to be photographed before burial, and that these photographs are to be preserved among the State archives to assist in subsequent identification.

HERE is a somewhat suitable motto for the inventor of the neat drop-a-penny-in-the-slot, portrait-taken-while-you-wait machine:

"The glowing portraits, *fresh* from life, that bring,  
Home to our hearts the truth from which they *spring*."  
Byron.

"PORTRAITS AND AUTOGRAPHS" (*Review of Reviews* Office, Mowbray House, Norfolk Street, W.C. 1s.)—The publication of the *Review of Reviews* was a literary event which was rewarded by a display of unusual interest on the part of the "aristocracy of brains" in the high places of the earth. The enterprising editor, Mr. W. T. Stead, received congratulations from personages as widely varying in their position and tastes as the Empress Frederick and Madame Olga Novikoff, as the Marquis of Dufferin and Ava and Mr. John Burns. To place on permanent record the good wishes and, in many cases, the good looks of his correspondents, Mr. Stead has published "Portraits and Autographs." For the small sum of one shilling, a handsomely-printed album, containing more than 100 portraits of distinguished men and women, and a cabinet photograph of Mr. Stead, may be obtained. It is a Madame Tussaud Exhibition on paper, and the charge for admission must be regarded as remarkably small. The features of Miss Olive Schreiner may here be seen, as well as those of George Meredith, Lord Coleridge, and a host of those who figure in the realms of "Brain Land."

## Letters to the Editor.

### GELATINE DRY PLATES.

SIR,—In Mr. Harrison's interesting articles on "Instantaneous Photography," he says, Dr. R. L. Maddox is usually and rightly considered the father of our present system of gelatine dry plates because he first published a workable formula in 1871.

I beg to inform Mr. Harrison and your readers that this is a mistake which has been many times repeated of late, and I have been urged by my friends to put the real facts once more before the public in the interests of truth and justice. I do not wish to rob Mr. Maddox of any honour due to him as an early experimenter in gelatine, but his formula has no connection whatever and no resemblance to the present system. It led to nothing, was taken no notice of by anyone at the time of publication, and was utterly abandoned by its author. It was dragged from obscurity after gelatine became famous by some of his friends to support his claim. Now, the real history of the present system dates from 1873, when my emulsion first appeared. I was an amateur photographer at that time, and the journals were full of Bolton and Sayce's collodion emulsion, and the endless messes recommended to confer sensitiveness, all of which I tried. I came to the conclusion, in my hunt for a sensitive dry plate, that dry collodion was too impervious to water, and thought of gelatine as a substitute. After months of labour and hundreds of experiments, I succeeded in making an emulsion just as it is made now, and I knew, as soon as I had produced a dry plate that required no washing and no preservative, and worked quicker than a wet plate, that a photographic revolution had come, and the reign of collodion was over. Amateurs of to-day have no idea of the trouble and uncertainty of making a batch of those old collodion dry plates, and the long exposures necessary after all. It is mere child's play now. It is the express train against the old lumbering carrier's cart. And I say, and can prove most certainly, that all photographers have to thank me for the present system of dry plates. Mr. Bennett is the only man who has any claim to share the honours with me; for his discovery gave a great impetus to the interest in gelatine plates. But the fact stands out clear and distinct in the old journals, that from the day my emulsion appeared, gelatine has held its own. My name in connexion with it dropped gradually out because I worked for other people. I suffered, as nearly all pioneers do, from the prejudice and ignorance which all new things have to encounter, and from the cupidity of designing men; and instead of reaping a rich reward, I had a harvest of bitter disappointment and a struggle for existence. I am free now to publish the real facts, and the world ought to know them.

My first advertisement of the new emulsion had scarcely been out one hour when Mr. Cobb, of Woolwich, called at my house in Queen's Road, Peckham, and bought the first bottle. I shall never forget his excitement and enthusiasm. Mr. Kennett bought the second bottle, and orders poured in from all parts of the world, and I thought my fortune was made; but, alas! it was only mirage. A week after Mr. Kennett bought his first bottle, I received a letter from him, stating that he had succeeded in his first experiment, but on trying it a second time he found the emulsion had decomposed and become useless. The weather was very hot, and I had hundreds of packages returned from the post-office, because they were bursting. Here was a disaster. Mr. Kennett sympathised with me, and kindly suggested several antiseptics that might be tried to remedy this serious evil; but I replied that I had thought of a better plan, and one fatal Saturday afternoon, when several gentlemen came at my invitation to see the plates worked, Mr. Kennett was there, and I mentioned to him that I intended in future to make a pellicle and send out the emulsion in a dry state, and I actually showed him some I had prepared. He walked off and took out a patent immediately. He told me he had experimented ten years previously with gelatine, but, like Dr. Maddox, abandoned it because his results were not encouraging, but having seen what could be done with my emulsion, he took the subject up again and worked out the process in his own way. He was a clever man with means, and did much better work than I could show. In my difficulties I was persuaded to write to the Liverpool Dry Plate Company, and offered to communicate my method if the said company would undertake to work it, and allow me 10 per cent. on the sales. Mr. Peter Mawdsley was the company, and, after trying some plates I sent him, came down from Liverpool and signed an agreement.



After dropping the thing myself in his favour, I never got a single penny, and so ended my dream of making a fortune. But I was not permitted to drop gelatino-bromide entirely. Mr. Morgan asked me to assist him in some experiments he was trying, and, in connection with Mr. Kidd, I worked out the gelatino-bromide paper. The original mode of working was mine entirely, though, doubtless, they have improved the details and brought the thing to perfection. Am I not then the father of gelatino-bromide? I know that every development of the present system sprang from my method of making the emulsion, and I was the first man who ever made a dry plate to work quicker than a wet one, and this fact alone gave birth to the present system of dry plates.—Yours faithfully,

JOHN BURGESS, F.C.S.

7, Wellington Road, Peckham, S.E.

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#### EDINBURGH PHOTOGRAPHIC EXHIBITION.

SIR,—Recently I had the pleasure of spending several hours in the Royal Scottish Academy's galleries in company with Mr. Lange, the President of the Liverpool Amateur Association.

The series of rooms stand, I should say, unequalled in design for the purpose of an exhibition of photographs, the temporary decorations being chaste, the space over the pictures being festooned with a drapery of old-gold colour. The panels, bearing the names of the early fathers of the art-science (amongst which I noticed Scheele, Niepce, Daguerre, Archer, Talbot, Sayce, Bolton, etc., etc.), are quite a novelty; and as the catalogue contains an introduction of an instructive and historical nature, the parts played by the several names on the scrolls or panels become a feature of interest even to the ordinary visitor. A large amount of labour and care must have been spent over the compilation of the catalogue.

On entering the noble suite of rooms, the tasteful appearance and general arrangement of the walls conveys the most favourable first impression; the closer examination brings the visitor face to face with excellent examples of every style of the photographic art, and of every method of production, reproduction, and enlargement now in use, also most valuable cases filled with relics of the past.

The professional photographers in Edinburgh and Glasgow make a splendid show in portraiture. I was specially struck with a large carbon on opal, "Three Little Girls at a Cottage Window," a charming work; for delicacy and beauty it could hardly be surpassed. I have rarely seen its equal. I hope the artist will send it to Liverpool in March, 1891.

As regards the amateur work, I do not think the standard was up to what one would expect from the residents of Bonnie Scotland; still, the exhibition, as a whole, is a splendid display of local work, with but few exceptions, all of a high order of merit.

The exhibit from the *Daily Graphic* is specially instructive, clearly showing how the type-block is produced by the photographic negative—the papier maché matrix or mould, the zincograph block, and finally the curved stereotype ready for the printer's ink, off which such numbers are produced so rapidly.

I will not attempt to trespass further on your space, merely adding that the conclusion we arrived at upon leaving the Edinburgh Photographic Exhibition of 1890, was regret that our time was so short, as we were leaving one of the best arranged and most delightful exhibitions yet seen. The President, Mr. Hippolyte J. Blanc, accorded to us a hearty welcome. We fancy the main burden of the heavy work was his—hanging decorations and production of the catalogue.

I may mention that the day previous was spent with the Glasgow amateurs, under the genial guardianship of the President, Mr. W. Lang, jun. The intercourse between the officers of the various provincial societies should be fostered more than hitherto.—Yours very truly,

T. S. MAYNE.

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#### ENLARGEMENTS FROM NEGATIVES TAKEN IN HAND-CAMERAS.

SIR,—I have read Mr. Dresser's letter on the above subject with much interest, though disinterested personally in the matter—not at present being a hand-camera man.

I certainly agree with every word he has written, and it comes to this, there has not been, as far as my reading of the terms of competition for prizes for photographs has gone, and I maintain

should not be, a word said to oust enlargements of small negatives to the prescribed size, provided that such enlargements, and the source from which they come, are the products of pure photography; and the producer of such enlargements, being terribly handicapped, is deserving of greater praise for any success he may gain over the exhibition of a photograph from a direct negative.

One might almost as well say that a print from a negative taken from a transparency, made for the purpose of providing against the possibility of a breakage of the direct negative, should be liable to refusal, as it would be but an indirect production.—Yours truly,

1, Place Charles Felix, Nice,  
December 17th, 1890.

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#### S. FRANCIS OF ASSISI.

SIR,—The Toynbee Camera Club have been asked to prepare some lantern slides to illustrate a lecture, in the middle of January, to the dockers, on this saint (the General Booth of his time).

Will any of your readers kindly help us with lantern slides, negatives, photographs, or prints that will serve to illustrate the lecture on the saint, his life, times, and places connected with him.—Yours faithfully,

L. M. BIDEN (President).  
11, Leadenhall Street, London,  
December 19th, 1890.



## A Photographer's Quest.

BY PETER PINHOLE.

It was in the merry month of May in this present year, the time when the camera men had commenced roaming over hill and dale to seek 'midst cardamine and apple blossom for idyllic subjects, that I, Peter Pinhole, strolled up Regina Street on my way to the Fin du Siècle Society's spring exhibition, when I bethought me of the necessity under which I was of getting a box of chocolates to send my niece on her seventh birthday. I therefore looked about me for a confectioner's. Presently I came upon one in the window of which I read the following announcement:—

"THE FREE PHOTOGRAPHIC COMPANY.—Anyone buying goods here to the value of one shilling will be photographed and presented with one copy gratis."

Near by were a number of very creditable specimens of cartes de visite. Being, as most people are aware, librarian of the newly formed Snap-Shot Society, my interest was immediately aroused, my appetite for photographic productions being omnivorous; I therefore at once entered and selected a two shilling casket of Cadbury's creams. In answer to my enquiries the young woman behind the counter said,

"Certainly our operator will be very pleased to take your portrait, if you will step up stairs."

Suffice it to say that in a few moments I was posed and the plate exposed; that done, I left my name and address, so that when ready the portrait might be sent on to me; and I then hurried round to the picture gallery to which I was bound. I had not got beyond the inspection of the first half-dozen exhibits, and had just turned from the enjoyment of one of Maurice Page's delightful moonlights, when I caught sight of an individual who for that day spoilt all thought of the fine arts.

Describe her, for of course it was a she, I cannot. If I tried to do so, my readers would possibly accuse me of exaggeration; still, if any are curious on the point the lady is already portrayed in the "Princess of Thule." Recall the catalogue of Sheila's charms, and you will picture she who at one blow conquered me. I never did believe in love at first sight, sympathies between souls, electric affinities, or anything else of the kind; it was therefore the more surprising to me why I should be, as it were, so mesmerised. Anyway, I lounged round the gallery in a sort of aimless way, pretending to look at the paintings, but thinking of nothing, and seeing nothing but the living picture which had so entranced me.

She was not alone, but in the company of an ancient dame, apparently of high degree, who had the dearest imaginable type of old-lady face. As I passed near them she said to my enchantress—



"Ruby, here is the very spot you love so well."

I meanly enough referred at once to my catalogue; the exhibit was merely labelled, "The fair wild fields and the circling downs," which did not tell me much.

Two hours passed almost as swiftly as two minutes, and then a gloom seemed to fall upon me. The cause was simply that *she* had gone, and I was left alone with the "painted pot boilers," as I savagely called them. I really believe that I should have ignobly tracked her home had not I been button-holed by a fussy member of the "Snap Shot Society," who just then entered; he had taken a cherry tree in full blossom, and wanted my opinion of the resulting print which he gleefully produced from his pocket.

"What do you think of that?" asked he, gazing fatuously and fondly at his production, which was an unusually bad, chalky fiasco. In the irritable frame of mind in which I at the moment was, it rose to my lips to say that it resembled a cauliflower focussed with a glass of whisky and water, but my interrogator had an expression of such ludicrous anxiety on his face to hear the tenour of my answer, that I even mumbled out something like approval.

Hungry is angry, so I decided to lunch and feel pleasant, but not all or any of Blanchard's *bonnes bouches* would raise an appetite, and so I wandered out again into the bustling streets, my thoughts intend upon one subject. Anon I was startled by a rush of hurrying feet, and a roar, which seemed to come from half a hundred voices, of "Stop thief!" A gaunt, wild-looking object in rags rushed by me, hounded on by a throng of excited pursuers. As he darted by, he cast an anxious look round, at which moment a fat butcher stopped his flight by dealing him a swinging blow on the side of the head. With a wild cry on his lips, of which I only heard the word "wife," he tottered and almost fell, but making a supreme effort recovered himself and ran into the road, hoping to escape capture among the cart-wheels: three seconds later saw him knocked down by a heavily-laden brewers' dray, the wheels of which passed over his neck.

Sick and sad, I hastened away, and turned into a quiet side street. There my attention was arrested by a pale and agitated face, the owner of which leant for support against some area railings; a rough, but good-natured looking Irishman, who carried a basket of nuts and oranges, was the only other individual present. As I stepped quickly forward, the latter said—

"Sure, miss, they'll catch him; there now, don't take on so."

I took it in at a glance; she was the one who had been robbed; she, in spite of whose troubled and terrified looks, I immediately recognised as the lady whose appearance had so captivated my senses at the picture gallery.

On my approach, a relieved and grateful look assured me that I also was recognised by her. Tipping the son of Erin, I proffered my escort and protection to the much-bewildered lady; this she immediately accepted, but her first words were not for me.

"Poor man!" said she, "I do hope they have not caught him."

"He has escaped them," I answered, speaking with as much steadiness as I could, remembering his tragic end.

Before time allowed for many more words I hailed a passing cab. Now, thought I, I shall learn what I long to know—her address.

"I thank you deeply for your timely help," said she, "but need not trouble you any further. I have indeed recovered from my fright. Poor man! he looked so dreadful."

To thrust my presence on her would have been foreign to my character, so having exchanged a few more words with her, I asked where I should tell the man to drive.

"To the United Service Club, if you please," was her reply.

Thunderstruck at this extinguishment of my hope of identifying her, I mechanically repeated the above to the cabby. When he had driven off and turned the corner, I ran after him to note the number on the cab, so that I might possibly learn from him the dwelling or name of his fare; but I was too late, he was lost in the throng of the traffic. As I stood for a few moments undecided how to act, two policemen, followed by a ragged mob, passed me, bearing between them a stretcher on which lay a covered form. At sight of this I fled to my home—or rather my lodgings.

From that day forth I exhausted every means I could think of to discover the lady whose acquaintance I had so strangely made, but unavailingly. While I was still actively prosecuting my inquiries, the post one morning brought me two missives: one black-edged, with the Guernsey post-mark, from my aunt, stated that my uncle was dead, and begging me to start at once for the

desolated house; the other was from the "Free Gift Photograph Company," and evidently contained my portrait.

Two hours later I had started from Waterloo to catch the boat at Southampton, without looking at my photograph; indeed, I forgot all about it until I had been several days at Guernsey, when accidentally finding it in one of my pockets, I opened it. What was my surprise to find that they had somehow in mistake sent me somebody else's portrait, and that none other than *my* Ruby! To describe my joy is not possible. I gazed on the, truth to tell, very poor print as if it were the work of some mighty painter. Circumstances kept me for some time at my aunt's, but at length, to my great satisfaction, I found myself on the steamer for Southampton. Arrived in London, I went straight to the Free Gift Photographic Company, determined to get from them my Ruby's address. What, however, was my mortification but to find the shop closed. As I stood gazing blankly at the shutters, the door opened and an exceedingly seedy-looking man protruded his head, and thus addressed me, "It ish no use, mine frendt, ve hafe a bill ov sale und die landlart hash to be paid out, ash well." He, the man in possession, evidently a German Jew, took me for a creditor of the vanished occupier. After this I gave up all hope of ever again meeting with my inamorata, and determined to drown my sorrows in the camera. I bought the largest one I could get, and dragged it up the steepest hills I could find within fifty miles; in it I exposed dozens of plates, but develop them I could not, no not one of them, for didn't my lamp suggest Ruby—my Ruby? I used to get as far as pouring on the developer, but while waiting for the appearance of the image, my thoughts went floating away to her, and by the time they returned the negative was hopelessly overdone. This was my experience with the first dozen or so, which resolved me to throw up photography altogether, as it was self-evident that I should never again be able to produce even a mediocre negative. I therefore resigned my office in the "Snap-Shot Society," and took up with fishing. I knew nothing of the "gentle craft," as I have heard it called, except that it was a solitary occupation well suited to a melancholy mind. From my experience I should say it certainly possessed the latter qualification, for I certainly never was more dismally employed in my life. In several months I caught nothing except some few greedy eels, who, much against my wish, got on to my line, and who I most heartily anathematised. And so the weary weeks rolled on, until "chill October" and gloomy evenings drove me back to London. Wandering one evening along the West End, a hearty, I was going to say brutal, slap on the back, startled me. It came from my old friend Sharp.

"How are ye, dear lad? The very boy I've been looking for and by the powers you oughtn't to be hard to find in the biggest of crowds."

This last was in allusion to my height, which is some six feet two inches. I tried to look pleased, and assumed a shockingly bad attempt at geniality, which did not much deceive Sharp, for he went on—

"What's the matter with ye, Pether; and where are all the fine things you should have sent to the Pall Mall? Speak, lad, are you ill, or is it that you have been gazing on the onion field?"

"Never better in my life," I stammered. "The fact is," I continued, "I have been busy in trying to discover—er—something connected with photography, which engrosses my time and mind."

"Bravo! But just by way of change come and help me the day after to-morrow with a lantern show; my operator has left me in the lurch, and I'm in a fix for want of a good man like yourself."

Sharp being an old friend who had done me many a good turn, I could not refuse him, so the evening in question found me at a kind of magnified mission-hall in the eastern slums operating the biunial, while Sharp described his adventures during an imaginary or anyhow imaginative trip to Lapland. I am not a geographically-minded person, but I should never have taken the route which he did in starting had I been desirous of getting anywhere near Greenland's icy mountains. Friend Sharp travelled *via* Berlin, Cyprus, and Spain, where he arrived well into the centre of the latter country. The Vivarambla gate was shown, and away in the dark some lady sang "In Old Madrid." I was strangely attracted by the rich contralto of the singer. A peculiar feeling crept over me, a sudden wild hope sprang up in my breast. But roars of applause which greeted the end of the ballad disturbed my reveries and speculations, and reminded me that I



must give all my attention to the slides. About the middle of the entertainment Sharp took a flash-light view of the audience, which seemed to rouse more enthusiasm than did the views; why, I could not imagine. I suppose the people thought it was a kind of indoor fireworks.

As soon as I was released from my duties I rushed round to the platform with a burning desire to see the singer of the Spanish cavatina. But alas! the lady in question had slipped out in the dark just before the end, in order to avoid the crush. The next evening found me solitary and dejected in my diggings. I had passed the day in pondering on the possibility of the vocalist being my Ruby. To my surprise, about eight o'clock, Sharp looked in; in his own words, he "Just dropped in on chance." With him he had brought a case of slides illustrating his forthcoming lecture, "Scenes in Slumland," regarding which he wanted my advice and suggestions. Although his call was to my mind an intrusive one, I could not find it in my heart to blame him, for in bygone days I should have welcomed him or any other amateur with open arms who came to me with anything of photographic interest. How was he to know I had a more engrossing hobby? And thus *volens volens* I lit up my optical lantern, unrolled my screen, and my friend enjoyed a pleasant time in "gassing" about his (of course) marvellous hand-camera work.

"Finally, dear b'hoy," said he, "behold the flash-light I took last night—sharp work in every sense, eh?" Although I had hitherto paid but scant attention, I determined to make an extra effort as this *was* the last; and so I gazed intently at it. Suddenly I sprang to my feet and waving my hand wildly in the direction of the screen, I said,

"Sharp! you know all these people?"

He looked at me narrowly.

"Well—considering I never saw *one* of them in my life, until yesterday—no! Friend Pether," he continued, "you have been over-studying."

Well might he say so, for I literally shook and shivered with excitement.

"I don't mean the general audience, but the row of ladies in the front seats, with rolls of music in their hands. Don't for mercy's sake say you are unacquainted with *any* of them!"

"Faith they're pretty enough, some of them," he answered, gazing at the disc on the screen, "but not a single one of them have I ever seen before."

In vain I pointed out to him the striking features of my peerless Ruby, who even in a flash light stood out from amongst the rest, as might some rare and exquisite orchid from a bouquet of buttercups.

Sharp could only say he had never even noticed her. Dolt and idiot that he was! thought I. However, I continued to ply him with questions, but could only get out of him that somebody asked what time the entertainment would end, as she and her party had to catch a train to Chalkhurst.

As further enquiries at the mission hall were without result, I journeyed down to Chalkhurst, a flourishing town some fifteen miles from London, determined to perambulate its streets for a few days on the chance of seeing Ruby once more. I put up at the principal hotel, "The Beagle," which was at the time nearly fully occupied by an American quack and his suite of assistants. His people consisted of several Tipperary "Red Injuns" and Whitechapel cowboys, also a powerful brass band; twice each day a cortege of the above rode through the town on horseback, while the great "medicine-man" followed in a showy buggy. Day after day did I ramble all over the town and surrounding districts. I even attended the out-door mass meetings held twice daily by the great medicine-man, and which drew an assembly of hundreds of people, hoping *she* might be in the crowd (which included high and low). But although, willy-nilly, I obtained much diversion of mind from the patter and performances of the peripatetic druggist and his helpers, I was disappointed in my hopes, and after the lapse of several days I despaired and resolved to return to town. On my way to make inquiries about the trains at the station, I came on a small throng round a photographer's shop window. Exclamations of wonderment and appreciation came from those who were looking into the window. Had I not been a photographer to the very core, I should, in my then frame of mind, certainly have passed on without giving the matter a second thought, but the old Adam was too strong. Elbowing my way through the people, I found that the attraction was an enormous enlargement of a

snap-shot view of the "great medicine man" and his crowd of auditors. It was rather cleverly done to show the features of the medicine man and also the faces of the crowd. A very sharp focus had been obtained, and the lens was possessed of great depth, inasmuch as the faces in the front were hardly more distinct than those at the back. I forgot my personal trouble and critically examined all parts of the picture. "Hurrah for the glorious art!" I cried, much to the amusement of the bystanders. The above exclamation was caused by a very simple fact, namely, amongst the others depicted I had identified the lost face—the face I was searching for. The first thing I did was to take a long walk into the country to cool down and to think. Three hours later found me back at the photographer's window. Being the dinner hour, very few were there. I asked some of them from time to time if they could tell me the name of the lady I sought. Some simply said they couldn't; others asked what I wanted to know for; and one said he had a good mind to kick me. This last I took to be an admirer of the lady, for on subsequently looking at the enlargement, I could distinctly recognise him standing close, a good deal too close, alongside Ruby. Had he been in sight, I might have followed him after the above discovery. At the same time he seemed to be a very savage-minded kind of animal, and I, in spite of my many inches, never did possess much physical courage. After this I deserted my post at the shop window and took a walk round. By this time I began to feel faint, so I dived into the first pastrycook's in order that I might obtain a mouthful to bridge over the time until seven o'clock dinner. I had hardly been a minute in the shop before I recognised in the assistant the identical young woman who was behind the counter of the Free Photograph Company, in Regina Street. In a moment I whipped out from my breast pocket the portrait of Ruby which had been sent me in error.

"Can you tell me this lady's name?" I enquired.

The young woman failed to recognise me, but she did the carte, although unwilling to own it.

"I know nothing about the Free Photograph Company," she replied.

"Of course not," said I, "but this young lady resides in this town, and the number on the photograph is 573. Find me her name and I will give you a sovereign. I will return in two hours."

This I did, and to my exceeding pleasure was informed that the required name was Miss Ruby De Lisle, and that she resided with her father in one of the principal residences in the town. I paid the sovereign with the utmost gladness, and went on my way to the "Beagle" rejoicing muchly.

"Well, me b'hoy, you are changed!" was the greeting of Sharp, whom I ran against by accident in the High Street.

"And what are you doing down here?" I asked.

"Annual trip of local photographic club. I have put up at the 'Beagle'—join me at dinner?"

I did so, and my spirits being high for the first time since many months, we had a most lively interchange of chat and badinage. Over the wine I looked at the programme, which was embellished with the names of officers, etc., of the local photographic society.

"Hullo! Why didn't you tell me before, that the President is Sir Arthur de Lisle?" I ejaculated.

"Why should I, dear lad?"

In a few words I explained things to my friend. He very kindly at the eleventh hour procured me a ticket. I scrambled into clean rags and a claw hammer, and attended the photographic footing "on the light fantastic." An hour later I had obtained an introduction to the long-sought Ruby. I certainly must have made some impression on her on that memorable day when first we met, for her earliest words were those of cordial thanks for my useful help. Our valise finished, she insisted on introducing me to her father, who, when he learned that I was not only the one who had rendered some small service to his daughter but was also a photographer whose name is well known in most amateur circles, became most pleasantly cordial. During the evening we had a long talk together, and he was good enough to say he would be most pleased to see my last contribution to photographic literature, a volume entitled "The Culture of Fog," in which I clearly prove that the aim of photography should not, as some people imagine, be to imitate nature, but to imitate paintings; not, of course, all paintings, but only such as are vaguely suggestive, and to which the term "symphony" or "arrangement" can be applied. Sir Arthur, moreover, hearing I intended staying for several weeks at the "Beagle" in order to make studies of the surrounding scenery, invited me to transfer my



quarters to his house, in order that he might more easily be able to join me in my rambles. Need I say more? Before my visit came to an end, I became engaged to my priceless Ruby; she whose bright beacon will, I know, always illuminate the dark-room in my heart, she who— [We reluctantly suppress the remainder of Mr. Pinhole's narrative—we feel that six pages of foolscap devoted to the praise of the future Mrs. Pinhole is more than our readers would care for.—ED : AM : PHOT :]

## “How I Started Photography.”

BY EDWARD W. T. WARD.

It was all Jack's fault.

“You really ought to go in for it, old chap,” he said; “you have no idea what an interesting thing it is to take up. I've just got a new camera, and my old one would do for you to begin with, and then if you like it you can get a better one later one.”

What *was* one to do? I am not very strong-minded, but I make up for that by being most enthusiastic. I must confess that I don't stick long to one amusement; for instance, last year I went in for cycling, and the year before, I think, it was “la crosse,” or perhaps that was the year before that again. But my real enjoyment is in change of amusement. Jack says this is weakness; I am rather inclined to think it is versatility. This will account to a great extent for my getting inoculated with photomania, and once the disorder had “caught on” it was soon at its height.

“You had better come to me one Saturday afternoon,” Jack said, and see how the thing works. It is perfectly simple and can be all learned in half-an-hour. We will expose and develop some plates before dinner, and in the evening I will show you how to tone prints, and that is all.”

“It sounds very simple, but isn't it rather an expensive amusement?” I asked. I was fast giving way.

“Expensive! Of course not, I should not go in for it if it were. Why, the plates only cost a penny each, and as for the stuff you put on, you can get enough to make a bucketful for about a shilling.”

That's the worst of Jack, he is so vague; so it didn't strike him, perhaps, that the price of the plates is only a very small, perhaps the smallest, item in the bill.

However, I turned up on Saturday for my lesson, and I am afraid I bored Jack's wife horribly, as she somehow doesn't seem to care about photography; at least, after I had told her all we were going to do that afternoon and how we hoped to get a lot of good pictures (results, I believe, is the correct phrase), and that I thought photography was quite the most amusing as well as instructive thing to take up, she made some vague remarks about a horrid mess in the store cupboard. I asked Jack, when he arrived, what she meant, and I found out from him that she used his dark-room for keeping her household stores in; this was rather a bore, as we had to move the jars of sugar, coffee, rice, etc., out into the passage to make room for our developing dishes. However, we got everything fixed up nicely at last, and the house-keeping scales certainly did very well for weighing the hypo in, though why Mrs. Jack should afterwards complain that the sugar in the after-dinner coffee tasted salt I never quite made out; certainly the red screen had been forgotten, and was still left over the window, and you know how stupid servants are.

I thought I would be particularly amiable to Mrs. Jack, as her husband was kindly teaching me photography, so I asked her to sit for me for my first attempt. I explained that I did not like to do anything too difficult at first but I wanted some plain, simple object for my first experiment, and wound up by asking her to honour me with a sitting. Really I can't make that girl out; she got quite cross and bounced out of the room, meeting Jack in the passage, and I heard her say something to him about “Never ask him here again.” I am afraid I must have put her out about something; I can't think what it could be; some girls are so dense.

Jack was now quite ready with the camera, and the next thing was what we were to take. Mrs. Jack was out of the question. Jack had to coach me, and I could not undertake to take myself; of course, it was necessary to take a portrait of someone, as it stands to reason that it is easier to take a single person than a landscape, because you haven't so many things to focus on at once.

“I have it,” said Jack at last, “there's Audrey, we'll take him. He's been very good lately, and I promised him a treat.”

I had never heard that there was a baby in the family, but then, Jack is so odd, perhaps he had forgotten to mention it to me. However, a baby would be just the thing to begin on. So small, you know, and easy to get on the plate. I remember reading, somewhere, that the larger the picture the greater the difficulty in composition, so what could be easier than a little baby?

“I'll go and get him ready,” Jack said, “while you choose a good background.”

“All right,” I answered, “but don't let your wife dress him up too smart, he'll look much jollier in his every-day things.”

“What the deuce do you mean? My wife doesn't dress the man-servant,” and Jack went off in a huff.

So the Jacks have started a man-servant, and Audrey too—what a swell name! By Jove, they are going it! I hope the calves will come out well, and I believe powdered hair looks ripping in a photograph.

I wandered up and down their garden with the machine, looking for a likely spot, while Jack was away persuading the stately flunky to condescend to have his photograph taken. Just as I got fixed, Jack returned, leading a small page boy in a tight blue suit and a perfect blaze of buttons. The boy carried in his hand an enormous silver breakfast tray, and in the centre of this sea of silver lay stranded a tiny craft, in the form of a three-cornered note.

He had been scrubbed till he shone, and his hair was freshly polished, and, with his tray and buttons, he positively sparkled as he came up the garden, and stood in front of the lens a perfect blaze of glory.

Jack posed him facing the camera, one hand behind his back and the other holding the tray, extended towards the machine as though offering the note.

Jack proposed to call it “Waiting for an Answer,” but I thought “A Glittering Page” would be a better title. We had quite a discussion on the subject, Jack is so stubborn and never knows when to give in. I was just proposing to toss for it, when a loud crash made us turn towards the sitter, whom we had forgotten. We found the tray had over-balanced him and he had come down with a run. Clearly, there was no time to be lost, as the first thing is not to overtire your sitter. We propped him up, put in the dark slide, took off the cap, quickly replaced it, and sent him off to his pantry, where he passes his days cleaning plate and polishing up his buttons.

We wrapped up the slide and rushed up to the dark-room.

“By George!” said Jack, “did you pull out the shutter of this machine?”

“No! of course not, I thought you did that when you put it in the camera.”

“Well, you are a blooming photographer!” Jack answered.

That is so like Jack, he is so casual. It was all his fault.

## On the Taking and Developing of Landscape Pictures.\*

A LECTURE DELIVERED TO THE PHOTOGRAPHIC SOCIETY OF VIENNA BY A. EINSLE.

GENTLEMEN,—To-day I am to have the honour of speaking to you about a developing process for gelatino-bromide of silver plates, which I have arranged for myself during the last few years, and which, in many cases, I have used with pleasing success. I published my method in the *Photographischen Correspondenz* in December, 1889, and at greater length, in January this year, in my esteemed friend Mr. Max Jaffé's technical journal. To-day I will speak specially of the application of this method to landscape photography.

Doubtless everyone that occupies himself with landscape photography knows with what difficulties one has to contend in order to obtain negatives which leave nothing to be desired either as to their capabilities of printing or the artistic excellence of the prints. I am convinced that every photographer has had the bitterest experience in this respect. These difficulties lie in the

\* From the *Photographischen Correspondenz*, translated by G. G. Bagster.



different degrees of light of the individual parts of the landscape.

The taking of landscapes I would divide into two great groups, viz., (a) near landscapes, (b) distant landscapes. The conditions of success are not the same in the two cases.

In the first case, in taking objects near without a distant view, diffused light without great contrast is desirable, nay, necessary; consequently a cloudy sky, nay, even dull weather, is desirable. In the second case, an open landscape with a distant view, bright sunshine is a primary condition.

From this follows first of all that the photographer must, before he starts forth, well consider the weather if he wishes to bring home beautiful pictures. But before leaving the house with his apparatus he should have in his mind's eye particular points to which he is to go. Strolling about without a plan with a heavy camera, particularly with large-sized plates, not only does not promote success, but mostly hinders it. If one has looked about a long time for suitable points, not only is the body tired, but also the eye. Every quarter of an hour one becomes less critical, till at last one takes a few pictures which afterwards show themselves to be wretched acquisitions. I always first go about without my apparatus with an extremely primitive view-meter, and choose suitable points for taking. The construction of this instrument is extremely simple. A common bi-concave lens, which gives a strong upright picture. It is covered with black paper as far inwards from the edge till the picture in the uncovered part of the lens corresponds to the image on the focussing screen. I had a box turned by the turner, bottom and lid being cut with a rectangular opening. With this apparatus I look at my landscape, and know at once how much of it I shall include on to the focussing screen. Even the most practised eye will be deceived as to the background, which always looks larger to us in nature than through the objective. Having found points which please my taste and feeling, I determine what will be a suitable time of day and the kind of light, and then go there with my apparatus and take the picture.

A picturesque landscape should answer all requirements, both as to the foreground (which, by the way, I deem the chief thing), as also the background; but in this matter the photographer's hands are tied. First the foreground must be perfectly sharp and fully exposed; on the other hand, the background and the sky must be less prominent, in fine half tones, but showing every detail. For this purpose have been invented sky-shades and shutters, which make it possible to expose the foreground longer than the background.

Let us imagine a board with a surface of one square meter, with white drawing paper stretched on it; on the paper are thick and thin lines in different positions. Let us further suppose that we set up our apparatus five inches from the board, and give an exposure of one second, which we find to be correct. Next we remove the board one inch farther from the apparatus, and again expose one second. If, in the first case, we got a well-exposed ground on our negative and the lines clear glass, then in the second case, doubtless, we shall get a well-exposed ground, but the lines will be slightly clouded and no longer clear glass. In other words, the exposure was somewhat too long, which seems pretty easily explained. The white surface received the same quantity of light in the first as the second exposure, reflecting it into the apparatus. In the first case the same light had to reduce a larger surface of the bromide of silver surface, in the second a smaller one. It is, therefore, easy to understand that in the second case a more intense effect was produced than in the first. Let us now remove the white surface farther and farther away, the image on the bromide of silver plate will get smaller and smaller, the over-exposure with the same time of exposing will become continually greater. We reach a point at which the image of the white surface will become much clouded on the negative, and where the details will have disappeared. But at last the point comes at which the ground will no longer be clouded; the developed surface grows grey, the action turns round, nay, there may come a moment at which we get a positive picture.

If now we apply this to the landscape, then the different positions of the white surface represent the different parts of the landscape from the foreground to the background. Each of these parts really needed a different length of exposure. But as these diverse distances will in nature be considerable, the intensity of light will be different to a colossal degree. The greater the distances the greater are the

differences, that is, the landscape reaches farther. But just as it is farther, even so the colour or the strength of the tone (in the picture) should decrease more and more, which is achieved by the simple parts in the negative becoming more and more clouded. But if with the landscape alone I achieve this effect, yet the sky is so immensely distant that the effect of its light on the plate will be proportionately greater, despite sky-shades and shutters. Thus instead of the clouds rich in detail, I shall get a detail-less, black surface impervious to light.

Probably all landscape photographers have experienced this. Various expedients have been resorted to. The exposure has been shortened. Perhaps one succeeded sometimes in saving the sky and the background, but the foreground, or, if that had been purposely avoided, then the middle ground, was under-exposed. Then a yellow screen was inserted; then one could expose longer, but the result was pretty much the same. But the insertion of a yellow screen has one advantage, namely, that the ultra violet rays invisible to our eyes become somewhat softer, by which means other glaring whites are subdued. But the shadows still more lose their details. Orthochromatic plates have been used; that is, the sensitiveness to blue was decreased. Is that good? I think not, because all those parts of the landscape on which sunlight does not immediately fall, thus the deeper shadows, leaves, etc., lose their entire actinic effect, which consists in the blue rays of light reflected from the sky. The effect is at last the same as before. And let us suppose, so as not to be considered ignoramuses, that by means of the orthochromatic plates these difficulties of exposure would really be avoided. Which of you, gentlemen, has been or is so fortunate as at all times to obtain really durable dyed plates? Unfortunately, I must confess to having had the most miserable experience conceivable with such plates.

Now, at last, I come to the essence of my developing process. I always expose for the extreme foreground, even though this is a single twig or blade of grass that cannot be avoided, entirely disregarding of the middle distance, the background, and the sky. Here I should like to mention an observation I have unfortunately made with reproductions only too often. As I mentioned before, the details of that white surface, with black lines, become clouded by the slightest over-exposure. By further, though on the whole trifling over-exposure, the plane loses its sharpness and becomes grey. I may say that in reproducing copper-plate engravings, even with double over-exposure, inversion takes place. It is the more surprising that in landscapes where the sky is over-exposed not twice but some hundreds of times, solarization takes place comparatively seldom, only then when the whole picture is flat. I hardly ever had this happen, even when I did not use my developing process. I cannot explain this, but must leave it to the learned to investigate. It would, however, be interesting to calculate by how much the actinicism of such a white plane grows with its distance from the objective.

I attach the chief importance to the foreground, as I said, and expose for this; the distance and sky get much too dark. To bring about a harmonious compromise here, I work upon the over-exposed parts during the development.

For years I have worked with hydroquinone according to the formula of Doctors Eder and Lenhard, which is as follows:—

I.					
Hydroquinone ..	..	..	..	..	10
Sodium sulphite ..	..	..	..	..	40
Water ..	..	..	..	..	400
II.					
Potash ..	..	..	..	..	20
Water ..	..	..	..	..	200

I take 100 parts of No. I, and 1 of No. II., and increase the amount of solution II. as needed. As soon as I see that the sky and the distance are appearing, I interrupt the development, and that all the sooner the quicker the lights shoot forth.

I take the plate out of the developer and wash it very carefully. This is a condition of success, as the developer remains in the gelatine and continues to act. I let the water drain off for some minutes, so that the superfluous water may not run over the plate. Then I take a paint-brush, very fine hair, dip it in a 10 per cent. solution of bromide of potassium, and pass it over the sky and the distance. I begin with the densest place, and put on more or less of the solution, let it run down towards the ground, put solution on the sky again, then perhaps paint some white rocks, a brook, roofs of houses, walls—these latter all in the



second instance—and let it continue to act according to the effect I intend to produce. Then it is again thoroughly washed, and the development continued in the old developer. During this continuation of the development, the parts not touched with bromide of potassium continue to develop, while the painted parts remain stationary. Thorough washing after painting with the solution is a second chief condition. One repeatedly examines the negatives by transmitted light, and may, should the contrast between foreground and background be too great, repeat the retardation in a similar way. Then the plate is developed and fixed like any other.

The whole act consists in interrupting the process at the right moment, and in determining the degree of retardation. In this way one can save negatives, *e.g.*, which have been over-exposed. When one sees that the negative appears flat—of course one must notice this in the first few seconds—one stops the development and washes particularly well. Then one keeps back not only the lights, but the whole plate, and develops in a very weak developer, even in hydroquinone without potash. In this case it must not be supposed that an addition of bromide to the developer would be successful. I succeeded with it in some cases.

If the partial retardation has been applied properly, the result is a negative the foreground of which is fully developed, and which shows a background sufficiently transparent and that kind of cloudy sky that was present when the picture was taken. If sufficiently transparent, and there were no clouds, this thin (but by no means flat) sky is excellently adapted for having clouds drawn on matt varnish on the back with pencil and stump. Then the plate may be retouched chemically and artistically, concerning which I cannot here enter into details.

In conclusion, I will now speak of some necessary local reduction or intensification of the finished negative. It often happens that one part or the other is too dense and consequently does not print, but makes ugly white spots on the positive. In this case partial toning down must take place, either with sharp outlines, *e.g.*, roofs, walls, the stove in a room, etc., or else with shaded outlines, *e.g.*, on the background of a landscape, clouds, surface of a lake, etc. If my developing process has been properly applied, this latter will hardly ever be necessary.

If I wish to reduce with sharp outline, I take the dry negative, and paint that part evenly with a 10 per cent. solution of red prussiate of potash, and let it act for a time. The longer, the greater the effect desired. Then I place the negative into a dish of water, wash it several times, and then lay it in a 20 per cent. solution of hypo. The parts painted with red prussiate of potash are reduced with even, sharp outlines. If the reduction is too slight I repeat it after thorough watering and drying the negative. If the negative is not to have sharp outlines, but is to be shaded off, I lay the dry negative into the water only till the film gets damp, then with a suitable paint-brush I apply some fixing solution, and put it on to that part of the negative, applying it as one does in sketching a drawing. For the densest part a brush full; for thinner ones less and less solution. Then I let it act well for some minutes, then wash, first with a 10 per cent. solution of red prussiate of potash, which I use in the same way. Already one will see the reduction begin; after each solution one washes, and thus continues till the desired effect is achieved. It is simply impossible to give exact theoretical directions; it must be practised. Thorough washing after these operations is naturally indispensable.

Now I come to partial intensification. I mention this subject only for the sake of completeness, for usually it is better and safer to keep back those thin parts of the negative by means of matt varnish and carmine on the back of the negative. It is not possible to intensify unless those parts, though thin, are rich in details. To obtain these details, and to strengthen them, is our object. Let us then imagine a landscape which has taken well, except for some foliage in the foreground. In this case I proceed analogously to the reduction where no sharp outlines are required. The negative is put into water for a moment, is then dried with blotting paper, and on this slightly glossy surface the part to be intensified is painted with a cold saturated solution (about 4 per cent.) of perchloride of mercury. One takes some liquid and lets it work till it seems bleached sufficiently. The maximum of mercury intensification has arrived, as is well known, when the lights have become white. Then washing takes place and blackening with diluted ammonia, which, on account of its evaporating quickly, I prefer to sodium sulphite. The negative is then washed and dried. The success is according to the nature of the negative. Is the

latter rich in details, then the intensifying will suffice; there are few details or none at all, then it will have been in vain. Sometimes, however, the following method will produce a better result. I intensify the whole negative, blacken, wash, and treat the parts that are then too dense with hyposulphite of sodium; this last, as is probably known to you, removes the intensification. Therefore it will be well before proceeding to partial reduction or intensification always to study the negative, and well consider which method is to be used. In order to be able to execute this work easily, I have had a retouching table constructed. It differs from other tables chiefly by having a top with a rectangular opening in it. Under the top is a mirror which can be turned lengthwise on its axis, and with it I throw light on the opening. On the opening I lay first a sheet of plate-glass a little larger than the opening, and on it horizontally the negative to be retouched. This sheet of glass I can absolutely level by means of three adjusting screws. This is to be recommended in order to prevent the fluid from running on to parts not to be treated. Thus I am in a position to watch the effect of the reduction or intensification closely, and to break off the process at the right moment.

I do not venture to decide whether, with my method of developing, and with that of partial reduction and intensification, I have got one step nearer the ideal of our art, namely, the production of picturesque landscapes, that is, landscapes producing a picturesque effect.

## Exposure.\*

PERHAPS this paper should be prefaced by an apology to this august assembly, but since it is written by request of your worthy President, let all the consequent fatigue be charged to him. It is not with any hope of materially increasing your information on the subject of exposure that this is written, but rather to provoke discussion, so that your undivided experience may be added to the general fund.

No point is of more importance: on few have we less tangible knowledge. Under, over, correct exposure are purely relative terms, based on a dozen independent variables. Let us set out in order some of these elements. Of the conditions beyond our control the chief is the light. This is modified by the season, time of day, condition of the atmosphere, etc., etc. The annual curve of intensity reaches its maximum about the last of May. There is then a slight depress, after which it remains practically constant until September, thence a uniform decrease until January, with nearly uniform strength until March, with a maximum about the last of January. After March an accelerating curve, until the maximum. Maximum is about four times the minimum. The falling off in June is due to the suspended dust in the air during the summer months.

Neglecting refraction, the diurnal variation is theoretically in direct proportion to the altitude of the sun, but in practice I find that the sun's intensity on a clear June day increases slowly from dawn until 8 a.m., more rapidly until 12, remaining nearly constant until 2 p.m., with a maximum at 1 p.m. After 2 p.m. the light decreases rapidly until 4 p.m., thence more gradually until dark. Maximum intensity is about twice that at 8 a.m. and 4 p.m.

If the sky be obscured by clouds the light is weakened more or less according to the density of the vapours, light grey clouds making very little difference, while storm clouds sometimes destroy the light for studio use. At noon clouds without rain frequently increase exposures one-half, or even double them. On cloudy days the curve of intensity increases slowly until 9 a.m.; thence more rapidly until 11, remaining about constant until 1 p.m., with maximum at 12; thence decreasing rapidly until 3 p.m., and afterwards gradually until dusk.

Increase of the temperature appears to favour shorter exposures, but this element is not constant. Dust, haze, and smoke increase exposures, more especially in the morning and evening. Before an electric storm exposures are increased, while immediately after much shorter ones will suffice.

Of conditions somewhat under control may be mentioned—

1. Clearness of skylight.
2. Colour of curtains.
3. Speed of plate.

\* Presented before the Convention at Washington by Mr. Huston.

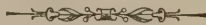


4. Size of diaphragm.
5. Kind of developer.
6. Temperature of developer.
7. Complexion of subject and colour and character of draperies.

In view of these conditions we must conclude that our knowledge of what constitutes proper exposure is a modified ignorance. We have no practical guide but experience. Exposure meters and exposure tables may serve as checks, but no more. The personal equation enters into such estimates too largely, while a slight change in the temperature of the developer or dark-room may upset careful calculation; calculations, by the way, that are generally made after "taking." Careful development must supplement judicious timing.

The amount of exposure absolutely necessary is dependent on the constitution of the latent image. If the change produced by the impact of the light on the sensitive surface be chemical, then it stands to reason that any exposure is sufficient, provided a developer of sufficient energy be applied. This is a very comforting theory, and if correct we may cease trying to force our plates to a sensitiveness that is already inconveniently great, and turn our attention to the production of a stronger developing agent.

If, on the other hand, the change produced by the light is mechanical, a definite exposure is necessary to overcome the inertia of the sensitive coating. I myself think the change is mechanical. A reason therefore is that while heat favours chemical action the period of maximum sensitiveness does not correspond with the period of maximum heat. Again, on hot and damp days, what we call muddy weather, when the developer works with almost uncontrollable energy, making the production of clear shadows a matter of difficulty, exposures must be lengthened, although the day be bright and clear. On this point, however, our knowledge is unmodified ignorance, and I bring to a close this contribution to the vast encyclopædia of what we don't know.



#### HIS AMBITION; TO BE A GREAT PHOTOGRAPHER.

OVER the old stone bridge we go,  
Across the river, to the town,  
Where carriages, with folks inside,  
We meet, and many things beside,  
And people walking up and down;

Yet in the picture, do you know,  
We photographed so carefully,  
There's not a creature, I declare!  
Although we plainly saw them there,  
My grown-up brother Dick and I.

Please, dear Mr. Editor,  
I really should so like to know  
Why the camera could not see  
What was so plain to Dick and me—  
The people passing to and fro.

I mentioned it to dear mamma,  
Who said that I might write to you,  
And hopes, as I'm a little boy,  
My simple question won't annoy.  
She sends this funny message too:

"Life, unto those of instincts fine,  
From dawn to night, from spring to fall,  
Is ever full of mystery;  
But still the greater number see  
Only the part material.

"If we had only faith, perchance,  
Or if our spiritual side  
Were more developed, might not we  
In heaven and earth new beauty see,  
Which now our slow perceptions hide?"

Please will you read my letter through?  
'Tis not a very long one, sir!  
For, oh! I do mean, if I can,  
When I am really grown a man,  
To be a great photographer.

## Exhibitions.

### BIRMINGHAM PHOT: SOC:

THE annual exhibition of the Birmingham Photographic Society was held in the Temperance Hall, Temple Street, on the 16th 17th, 18th, and 19th inst. The catalogue (which runs to forty pages, and includes a pretty little 'inset' picture) gives the titles, etc., of the pictures in 349 frames, which competed in the twenty-five classes for which prizes were offered. These frames were hung round the hall, on a backing of red baize, and presented a very handsome appearance. The awards were as follows:—

Class I. (Instantaneous; Judge, Paul Lange; eight frames).—Hon. Mention to J. H. Pickard for "A Group of Young Ferrets."

Class II. (Landscape, whole-plate and over; Judge, Geo. Bankart; twenty-three frames).—Silver Medal to Jerome Harrison for "Wallcomb Bridge, Dartmoor;" Hon. Mention to B. Karleese, W. Rooke, J. C. Heaton, J. Harrison, J. Simkins, and A. R. Longmore. An excellent class.

Class III. (Small Landscape; Judge, Geo. Bankart; twenty-nine frames).—Silver Medal to W. Rooke for "Norway Landscape;" Hon. Mention to J. Harrison, E. H. Jaques, H. W. Southall, W. Rooke, and J. W. Moore.

Class IV. (Transparencies; Judge, P. Lange; thirty frames).—Silver Medal to H. W. Southall, for three pictures of Killarney; Hon. Mention to C. H. Palethorpe and A. R. Longmore. A large and remarkably good class.

Class V. (Enlargements; Judge, H. P. Robinson; seventeen frames).—Silver Medal to J. H. Pickard for "Bunch of Grapes," a picture notable for its exquisite tone and refinement; Hon. Mention to H. W. Southall.

Class VI. (Portraiture, single figures; Judge, H. P. Robinson; fourteen frames).—Silver Medal to G. J. Sershall; Hon. Mention to J. W. Moore.

Class VIII. (Scientific; Judge, T. C. Hepworth; three frames). Silver Medal to Jerome Harrison for "Flowers and Fruit." The Isochromatic plates have done Mr. Harrison yeoman service in this class.

Class IX. (Lantern Slides, Landscapes; Judge, J. B. B. Wellington; twenty-three slides).—Silver Medal (the gift of Mr. Bonehill) to B. Karleese.

Class X. (Lantern Slides, other than Landscape); Judge, J. B. B. Wellington; twenty-six slides).—Bronze Medal (offered by Mr. A. A. Constantine) to E. H. Jaques.

Class XI. (Interiors; Judge, F. Sutcliffe; sixteen frames).—Silver Medal to Jerome Harrison for "Beauchamp Chapel," a picture full of detail and without a trace of halation. Hon. Mention to W. Rooke, E. C. Middleton, and G. J. Sershall.

Class XIII. (Genre; Judge, W. Adcock; twenty-two frames).—Silver Medal to B. Karleese, for three figure studies at Whitby; Hon. Mention to J. Harrison and J. W. Moore.

Hand Camera Work (Judge, J. B. B. Wellington; thirteen frames).—Silver Medal to A. J. Leeson, for "Off for the Steamer."

Class XIV. (Architecture, exteriors; Judge, F. Sutcliffe; twenty-five frames).—Silver Medal to Whitworth Wallis, for three pictures of Pompeii; Hon. Mention to E. H. Jaques and A. J. Leeson.

Class XV. (Seascapes; Judge, Rev. Miles Barnes; sixteen frames).—Silver Medal to A. J. Leeson, for "Unloading Boat;" Hon. Mention to J. Harrison and E. H. Jaques.

Class XVI. (Local Photographs; Judge, F. Sutcliffe; three frames).—Prize, value three guineas (offered by the President, J. B. Stone, Esq.), to B. Karleese; Hon. Mention, E. H. Jaques.

Class XVIII. (Most Artistic Photograph, quarter-plate; Judge, J. Pratt; nine frames).—Silver Medal (offered by Dr. Leech) to T. J. Davis, for "Llansantffraid Church." The judge in this class was a local artist, and from his award we get an idea of what artists prefer—a little black interior, with much halation!

Class XX. (Hoar-Frost or Snow; Judge, Geo. Bankart; five frames).—Prize (offered by Mr. W. Griffiths) to J. W. Moore, for "Thawing Snow."

Class XXI. (Platinotype Print; Judge, R. Keene; twenty-two frames).—Prize (offered by Dr. Huxley) to W. Rooke; Hon. Mention to J. Harrison, B. Karleese, and J. H. Pickard.

Class XXII. (Flowers; Judge, H. Stevens; ten frames).—



Hon. Mention to Jerome Harrison and A. W. Wills. We should have considered the pictures exhibited by either of these gentlemen well worthy of a medal, but the judge must have taken a very high standard.

Class XXIII. (Warwickshire Churches; Judges, Messrs. Harold Baker, Cossins, and Pratt; four frames).—Hon. Mention to E. H. Jaques.

Class XXIV. (Historical Buildings in Warwickshire; Judges, as in Class XXIII.; four frames).—Hon. Mention to B. Karleese.

Class XXV. (Warwickshire Peasantry; Judge, W. Adcock; twelve frames).—Silver Medal (offered by Mr. W. S. Horton) to E. H. Jaques; Hon. Mention to A. J. Leeson and E. H. Jaques.

In the galleries a large number of pictures taken during the past season, in accordance with the "County Survey" scheme, as proposed by Mr. Harrison, are exhibited. Mr. Harrison himself shows nearly 200 whole-plate prints; and Messrs. Stone, Karleese, Pickard, Dr. Leech, Leeson, T. Taylor, etc., contribute very largely to this most valuable project. Two professional friends—Mr. Kimberley, of Kenilworth; and Mr. R. Keene, of Derby—send also some excellent pictures to this section. We commend our Birmingham friends most heartily for their loyalty to their country.

In another gallery, Messrs. Chiddleton and Fowler showed 240 prints, illustrating a survey which they are making of the River Severn, from its source to the sea.

Altogether this Birmingham Exhibition is a great advance on anything done by the local Society in former years. The pictures reach a high average of merit, and the members, evidently, do not intend to part with the National Challenge Cup (which they won at the Crystal Palace last spring) without a hard struggle.

Lantern shows have been given nightly, and for this purpose the splendid biunial recently purchased by the Society, from J. Place, of Bull Street, at a cost of over £30, has proved of great service. The views were shown by Mr. E. Howard Jaques. The Exhibition Committee consisted of Messrs. Bonehill, Jaques, Karleese, Longmore, Osborne, and Horton, and they have worked night and day. Their exertions deserved success, and we trust that the results will show that they have been able to command it

## PICTURES AND PASTELS.

BY ONE WHO DOES NOT KNOW.

The other day, for the first time in my life, I resembled the late Lord Houghton. Having no duties to perform, I was obliged, like him, to "put up with pleasures," with the result that I wended my way to Dowdeswell's, 160, New Bond Street. I had heard of artists who were said to belong to the Newlyn School, and was, therefore, interested in an exhibition of pictures by artists residing in, or painting at, Newlyn, St. Ives, Falmouth, and other parts of Cornwall. In all, there are 128 specimens of work done by these artists, who, I suppose, should be called Newlyn scholars. The first picture to attract my attention was "A Rough Pasture" (6), by Mr. Alfred Brown. I think Mr. G. Davison would be interested in this. A quiet cottage interior, with a telegraph messenger waiting at the door, is entitled by Mr. H. S. Tuke "The Message" (11). I do not think Mr. Sims Reeves would be interested in this. One point that struck me was the calm face of the woman who is reading the telegram. I suppose it is only a message to say that her husband will not dine at home. Like the Yorkshireman, in "A Pair of Spectacles," I felt bound to remark "I know those telegrams." Mr. Stanhope Forbes is successful with his picture (15) "Boy with Trumpet," while Mr. Adrian Stokes, a distinguished Newlyn scholar, gives a charming sketch in "The Village by the Marsh" (15A). Mr. Alfred East, forsaking Japan, shows great mastery of atmospheric effect in "A Watery Moon" (18). One hardly understands why Mr. A. C. Tayler's sadly modern "Déjeuner à l'Hôtel de Paris, Boulogne" (19) is included in this collection, although it is cleverly painted. Three very pretty sketches by Mr. F. Richards (21, 22, 23) should not be overlooked. A truthful reflection of light on the face of a girl is to be seen in "The Shadow" (27), by Mr. E. E. Simmons. The child who is depicted by Mr. H. Bishop as representing the "Dawn of Imagination," is too saintly to have really enjoyed the book in her hand, "Hans Christian Andersen's Fairy Tales." A lady and a dog, with a violoncello in the background, form a pretty picture by Mr. J. Da Costa (35). In a simple kitchen two girls are playing dominoes, and Mr. F. Bramley must be heartily congratulated on

his picture (39), which is most effective. Mr. C. Davies (40) is the artist of a capital picture, quite in Mr. Brett's style, entitled "Off St. Ives." The child in "The Thief" (42), by Mr. T. C. Gotch, is taking things very quietly, while the old gentleman (? the thief) seems the impersonation of the words, "I am content to wait!" Mr. S. M. Laurence (50) has given to the waves a "softened splendour" which is highly promising of good work in the future. Two pictures (52, 53), by Mr. L. Grier, rightly attract notice by the splendid haze in "The Ebb of Day," and the sea in "Where Breakers Roar." Mr. H. Harewood Robinson displays great powers in a picture (64), with relation to which he has quoted the words, "The labour we delight in physics pain." Mr. Detmold is successful, but not quite so successful as he might have been, in "A Peaceful Evening" (66). Two admirable subjects are "Edelweiss," by Mrs. Stokes, and "Passing Storm," by Mr. Adrian Stokes. The venerable lady depicted in a water-colour by Mr. W. Langley (80) seems to be, like Mrs. Gummidge, "thinking of the old 'un." In "By the Sea," by the same artist, one may admire a beautiful water-colour painting. Mrs. Stanhope Forbes invests "The Witch" (91) with real artistic taste. Her husband exhibits a charming view of "A Convent" (100), near which a boy and a girl are true lotos-eaters. Mr. C. H. Whitworth gives a good impression of Newlyn, with the pilchard boats going out (121). All the paintings are worth viewing, many are beautiful, and all are hopeful as representing an artistic movement which is both happy and wise.

## THE PASTELS.

With the words of Corney Grain echoing in my ear, "The public's got a serious turn, dance music does not pay," I entered the room set apart for the exhibition of Mr. James Guthrie's pastels. The rage for pastels shows the public in a decidedly "serious turn." When I explained to a critic, who wanted to know the meaning of the word "pastels," that I thought it meant *past* all criticism, I thought he would have fainted. When I came in view of No. 7—for none of Mr. Guthrie's pastels have a title bestowed on them—I sighed a deep sigh. It was sold, and I was so glad of that, for the young lady with dashes of green as a background quite frightened "One who does not know." I was told that Mr. Guthrie had been but a few months engaged upon the fifty-two pastels exhibited. I wished—so heterodox am I—that he had spent a few more months in definition. Like Blumenthal's hero, "I cried in my passionate longing" for some distinctness; and then I seemed to hear the reproach of the public who "love those dear pastels," and so I went to gaze on No. 12. The poor labourers seemed to me to be quite indistinct—not an unusual case, however, with labourers. The young lady (No. 15) ought to see a doctor, as those dark shadows on her face almost made me say, "I'm afraid you are not very well, miss." Mr. Guthrie ought to have been another month before he completed what an ardent pastellist near me described as "the gem of the whole collection"—No. 19. To my idea, the poor girl was frightened out of her wits by the apparition of a hedge and a vicar. I can sincerely congratulate the artist on No. 40, where an old lady is drinking tea "like one o'clock." Nos. 35 and 45 are most effective, and No. 34 should be carefully regarded, for I was not quite sure what it represented. Despite the foregoing, I really enjoyed the skill with which Mr. Guthrie has given vivid ideas with few strokes.



MESSRS. RAPHAEL TUCK AND Co.'s CHRISTMAS CARDS are this year even more beautiful and artistic than ever, and the new forms of folding cards show great ingenuity and considerable taste. One of the new forms is that of booklets cut into the shape of flowers, dog's head, etc., and printed in the proper colours. There are charming little calendars, baskets full of children, windmills, flowers, and cards of all sorts, shapes and sizes, so that every taste can be satisfied, and every variety of feeling conveyed.

THE ILFORD SPECIAL LANTERN PLATES FOR BLACK TONES.—These plates which have just been introduced by the Britannia Works Company are likely to take their place as equal favourites with their bromide paper and other preparations. We have found not the slightest difficulty in obtaining pure black tones free from any tendency to rusty or greenish tints with the special hydroquinone developer recommended in the instructions, and equally good results are to be obtained with ferrous oxalate and eikonogen, although we think that a little longer exposure than is recommended is advisable.



## Notes from the Edinburgh Centre.

(By our District Editor.)

A **SPLENDID** tribute to the quality of the Edinburgh Photographic Exhibition is furnished by the following letter from Mr. Thomas S. Mayne, the Secretary of the forthcoming Liverpool Exhibition, who, together with Mr. Paul Lange, visited the Edinburgh Exhibition on Friday, 12th inst. Writing to Mr. H. J. Blanc, the President of the Edinburgh Photographic Society, Mr. Mayne said, "I had not time to write as I intended, yesterday, to thank you for your attention to Mr. Lange and myself at your charming exhibition on Friday. Our visit was most enjoyable. The extent and perfect arrangement of your rooms did surprise us. For myself, I have been at the last six photographic exhibitions in Pall Mall, and at other places in various localities, and, well, yours puts them all in the shade without doubt. I think, probably, our own in 1888 was fully equal to yours, no doubt greatly assisted by the fine suite of rooms in the Walker Art Gallery, where, in 1891, I trust we may see you and reciprocate your kindness. I would like to see more real fellowship between the provincial societies."

The exhibition awards are not out yet, but may be expected in a day or two. I understand the jurors are conducting the latter part of their business through the post, which is a slow process, but they live so far apart that it is a difficult matter to bring them together. It is rumoured that, after all, they cannot agree upon the picture which possesses the highest degree of merit, irrespective of size or subject, for which the only gold medal is offered, and that there is a probability of its not being awarded. If that difficulty exist, it may account for the delay, and if the medal is not awarded, it will be a great loss to the attractions of the exhibition.

Two very enjoyable entertainments were given in the exhibition last week. On Tuesday night the Society were fortunate in securing the services of Mr. Charles Reid, of Wishaw, who may without fear of contradiction be termed the most accomplished animal photographer of the day. Mr. Reid is a native of Turriff, in Aberdeenshire, and in his youth was engaged in the postal service, but developed into a photographer. One of his pictures was a group of Highland cattle on a rocky knoll, and he explained that it took him several hours to get them into position. A most natural group was the result. Another picture was a dog lapping water as it dropped from a street well, with a child holding down the handle of the well. Another picture which greatly pleased the audience was a hen and ducklings, the latter in the water, and the hen in great trepidation on the bank. It was an amusing sight, Mr. Reid explained, to see himself, the farmer, and several assistants, engaged for hours driving the hen and her brood to the pond, but they succeeded. In photographing animals, more so than with people it is essential that they be not in any way constrained, else they lose their natural appearance, and the photograph is of little value. Few photographers have the patience of Mr. Reid, or his gentleness in handling the animals, and it is these qualities which explain the very high standard of excellence to which he has attained in the special branch of the photographic art in which his affections lie.

The other entertainment was given by Mr. W. Lamond Howie, F.C.S., London, on Friday night. Mr. Howie was in Norway in June two years ago, and he showed a series of about eighty slides of photographs taken during a ten-days' sojourn in that country. The illustrations of loek, mountains, glacier, waterfall, etc., scenery, were very much appreciated, the photographs being very skillfully taken and developed. He was also able to show one or two interiors, and views illustrating the manners and customs of the people, which were very interesting. One of the last of the series was a very clear view of the railway station at Bergen, taken at 11.52 p.m., on a June night, for which a two minutes' exposure was quite sufficient in the northern latitude. Several of his views, particularly one showing a sunset off Bergen, were toned by the Obernetter process, and looked very pleasing. Mr. Blanc, who presided, expressed the hope that, as Mr. Howie was at the passion play at Ober Ammergau, and had already furnished illustrations of it to the Press, he might prepare a lantern set of the subject and be able to show it to them, a proposal which the audience warmly received.

Sir Wm. Fettes Douglas, the President of the Royal Scottish Academy, is a sceptic on the question of photographic art. He dis-

tributed the prizes to the students in the Life School of the Academy on Wednesday, and, apologising for the prize studies not being exhibited, said that "unfortunately these photographs—which were very excellent things, but had no connection with art—occupied the galleries." I wonder if he has seen "these photographs" in the galleries. He may not recognise art in them, but it is there all the same, and undoubtedly one does not hear visitors leaving the exhibition complaining of crudities being inflicted upon them, as so frequently happens in connection with the Royal Scottish Academy exhibitions. All photographers are not artists; but neither are all who style themselves artists. It is not, however, customary for photographers to despise art, but rather to study it and try to master it. In like manner it would serve the artist better to study the photograph, and endeavour to learn from it, than to treat it with contempt. Perhaps this is too much to expect from the present leaders of art, but a younger generation, with opener eyes, may act more sensibly.

## Reviews.

CHRISTMAS *Double Number of the "Review of Reviews"* is a splendid shillingsworth, and besides the ordinary condensation of the articles from the Reviews, contains an extraordinary number of illustrations which, by the way, are somewhat marred in the printing. One of the features of this number is a series of pictures illustrating "A Year's History in Caricature," which includes reproductions of sketches by comic artists in all quarters of the globe. There is also an illustrated article on the Passion Play at Oberammergau. Other articles of general interest are "Dr. Koch's Cure for Consumption," with portrait; "The Story of the Fall of Mr. Parnell," with portrait, and one on "A Magic-Lantern Mission," which had its rise in one of the articles in the first number of the *Photographic Quarterly*, "The Optical Lantern as an Aid to Teaching," by C. H. Bothamley, F.C.S. There is also a very full guide to Christmas gift books, and we confidently recommend the book to those who desire to keep in touch with current literature, but lack time to read the complete articles in the magazines.

"Photography for Architects" (Messrs. Iliffe and Sons, St. Bride Street) is a little handbook compiled by Mr. F. W. Mills in the belief that a little elementary knowledge of photography would be of benefit to architects. The knowledge contained in the book is certainly most elementary, and could be more cheaply obtained from an ordinary shilling handbook. The brochure is, however, nicely printed and bound, and will serve as an appetizer, making the reader long for more.

"Faithful Friends" is the title given by Messrs. Hachette and Cie. to a novel and pretty perpetual calendar, which is likely to have a large sale. On a fair-sized card are three sitting poodles, each having a card hanging from its mouth by a cord. The middle of each card is formed of a portion of a length of blue satin ribbon, on which are printed the day of the week, the month, and the day of the month, and by pulling one or other end of the ribbon the various printed lines can be changed. The calendar is intended to hang on a wall by a blue silk cord.

## Round and about the Clubs.

### THE NORTH MIDDLESEX PHOTOGRAPHIC CLUB'S EXHIBITION.

"The well-laid schemes o' mice and men gang aft agley,"

And your representative was one of the unhappy individuals who come into the category, for, purposing to pay a visit to this exhibition at the head-quarters of the Club at the Jubilee Hall, Hornsey Rise, I consulted my bosom friend as to the best way to get there (totally neglecting to observe the careful directions on the face of the ticket). He, as an old resident in the neighbourhood, advised that I should take the Great Northern train to Hornsey, adding that on arrival there I should find myself very near the hall.

I took the advice, and after a somewhat slow and cold journey, for the night was misty and the train crowded, I disembarked at Hornsey Station. Inquiry of the ticket-collector led to announcement that there was a *National Hall* close by, but no *Jubilee Hall*. Of course, these names were interchangeable, so I



went for the National Hall, passed the folding doors, and found a crowd but no exhibition. A rapid retreat followed, and as the hour was somewhat late, an agonised appeal was made to the first passer by. After some gentle coaxing of a brain wearied by much thought, he remembered that there was some hall, perhaps a Jubilee Hall, at Hornsey Rise. Out came the ticket, and behold! on the face of it stood the words: "Jubilee Hall, Hornsey Rise (adjoining the Midland Railway Station). Ossa on Pelion piled would scarcely have been heavy enough to put a break on the mental language that followed the tardy discovery.

"How far is it to the Midland Railway Station?"

"A good half-hour's walk."

There were no other means of progression available, so the walk was made, and very late I arrived at the real Jubilee Hall, and the relief experienced at arriving at the end of my quest was by no means lessened by the cheerful scene inside the exhibition room, viewed to the soft jingle of the cheering teacup. The story of the "Dandy Fifth" was being told with considerable force, but even that attraction was neglected for the sake of the invigorator before-mentioned, when, feeling cheered and soothed, the Secretary, Mr. G. Martin, was sought, found, and carried off to a cosy corner for a few, a very few minutes.

Having given me a tastefully got up catalogue, Mr. Martin pointed out that there were on the walls no less than 120 exhibits, the work of members, largely during the present year, the number of exhibitors being only 18. There were also, however, 78 lantern slides sent in for competition; Messrs. J. Gale and Ralph W. Robinson being the judges for both prints and slides. The exhibits were arranged round the room in convenient positions for being seen, and the visitors must have thoroughly agreed with the judges that the work shown was very good for a local society, and it is somewhat curious to notice that they were further of opinion that the work in the bromide and platinum class was better than that in the class of silver prints. The work showed also a considerable advance in artistic and technical character on that of the previous exhibition. There can be no doubt that the work shown was good, but it is to be regretted that only one member should have felt himself equal to attacking a genre study. Mr. W. T. Goodhew, on learning there were no other competitors in the class, withdrew from the competition, but the judges thought his pictures, "An Unexpected Difficulty," and "The Week's News," both platinotypes, so good that they awarded him the certificate. The other awards were as follows:—Silver prints (landscape): 1, J. C. S. Mummery; 2, W. T. Goodhew. Platinum, bromide, or kindred process prints (landscape): 1, F. W. Cox (platinum); 2, W. T. Goodhew (platinum). Genre pictures: W. T. Goodhew. Portraits: 1, E. T. Hiscock; 2, F. Cherry. Enlargements: 1, C. Beadle; 2, W. Taylor. Lantern slides: 1, W. Taylor; 2, E. T. Hiscock. It is pleasing to observe that the society adopted a principle this journal has been long advocating, by applying the rule to the exhibition, that "no picture which has received an award in any previous exhibition will be allowed to compete."

Soon after nine o'clock the lantern was put in operation for the purpose of showing the prize slides, and others sent in for the occasion, all of which were very creditable to the workers. The President, Mr. Humphries, F.S.A., seemed to be thoroughly enjoying himself, for he was here, there, and everywhere, exerting himself, together with the Secretary, to see that the visitors were comfortable, a condition they could scarcely escape from so long as they remained in the commodious and charming premises forming the head-quarters of the North Middlesex Photographic Club.



**THE YELLOW STAIN OF HYDROQUINONE.**—M. Imbault proposes the following method of removing the above defect. The stained negative is immersed in a bath of

Potassium ferricyanide	..	..	..	1 gramme.
Distilled water	..	..	..	200 c.c.

The negative is examined by transmitted light from time to time, and when all the stain has disappeared, the plate is well washed and fixed as usual. M. de Villecholle said that the same might also be removed by a fixing bath composed of

Hypo-sulphite of soda	..	..	..	20 grammes.
Sodium bisulphite	..	..	..	5 "
Water	..	..	..	100 c.c.

We have also found that any acid fixing bath has precisely the same effect, which was first pointed out by Herr Lainer in *Photographische Correspondenz*.

## Societies' Meetings.

**NOTE.**—In this column the Editor can of necessity only give a brief summary of the proceedings. Papers read before societies will appear in the PHOTOGRAPHIC REPORTER, and the Editor of the REPORTER will be glad to receive reports for insertion as early as possible after the meetings have been held.

**BLACKBURN AND DISTRICT PHOT. SOC.**—On Friday, the 12th inst., Mr. H. M. Smith gave a demonstration on "Bromide Enlarging on Eastman Paper," and showed samples of enlargements and other prints taken with the Kodak camera, which were very much admired. A special room was taken for that night, and there was a very fair attendance. Mr. Pilling (Vice-President) was in the chair, and there were several visitors present. All were much interested, and a vote of thanks was passed to Mr. Smith for his lecture and demonstration.

**BRIXTON AND CLAPHAM CAMERA CLUB.**—An interesting demonstration was given on the 18th inst. by Mr. S. H. Fry, of the Fry Manufacturing Company, on "The Development of Bromide Paper." He explained the working of the process thoroughly in all its details, afterwards developing several prints and opals before the members. In the course of his remarks he strongly recommended the use of ferrous oxalate as a developer, and pointed out that, contrary to the usual instructions, there was really no necessity for an acid bath between development and fixation. This statement surprised some of the members, but coming from a worker having such everyday experience, it carried conviction with it. The demonstration was practical in every sense of the word. A number of enlargements were handed round for inspection, among them being several on Fry's "Naturalistic" paper. Next meeting, January 8th, 1891, when a demonstration will be given by the Eastman Company on "Rollable Films, etc."

**CROYDON CAMERA CLUB.**—Ordinary meeting, 17th December, the President in the chair. The rules for election of officers and councillors as approved by the Council were confirmed and adopted. Mr. Green gave a lucid and interesting address on the application of primuline to the production of diazotypes, illustrated by about a dozen brilliant and deftly performed experiments and demonstrations. A large collection of prints, transparencies, lantern-slides, and textiles were shown in illustration of the subject. The President and Messrs. Blaw, Neeves, Maxey, and Brookes joined in the subsequent discussion. January 5th, members' lantern night.

**DEWSBURY AM. PHOT. SOC.**—At the last monthly meeting, Councillor S. C. Hepworth in the chair, Mr. H. M. Smith, of the Eastman Photographic Company, showed the No. 1 Kodak, then No. 2 and No. 3, exhibiting photographs taken with them. He also exhibited the latest form of Kodak, No. 4. The transparent film was described, how it is manufactured and how to use it. Mr. Smith handed round some fine enlargements made from Kodak negatives. The ordinary business was then gone through; Mr. Beaumont in the chair. Four new members were admitted. A letter was read from the Editor of AMATEUR PHOTOGRAPHER, re Stereoscopic Slide Competition, stating that they could not alter the conditions, but to encourage the members of the Dewsbury Society he would give a special silver and bronze medal for their competition. Seven members had entered the competition for the special medals, five slides to be only entered; and four had entered the general competition. The next meeting being the annual meeting, it will be held on January 8th, for the election of officers. Mr. A. S. Marriott promised to give a paper, to be illustrated by lantern slides. There was a large attendance of members and friends from the Morley, Batley, and Spen Valley Societies.

**EAST SOUTHSEA PHOT. SOC.**—The last ordinary meeting for this year of the above Society took place on the 16th inst., at their rooms in Albert-road. The programme included a demonstration on flash-light photography, by Mr. R. Potter. Some of the members were photographed by the magnesium light, several good negatives being the result of the experiment.

**EALING PHOT. SOC.**—On the 18th inst. a numerously attended meeting of this Society was held in the Public Buildings, Ealing, when the chair was taken by the President, Mr. H. W. Peal. The second set of American lantern slides, "Illustrated Boston," were passed through the lantern, and the description which accompanied the slides was read meanwhile by the Hon. Secretary. Some views were also shown of Dawlish and other places, which had been prepared by the members of the Society, and several



slides from negatives taken at the previous meeting by means of the flash-light apparatus were shown. The President announced that the next meeting would be held on the 15th January, 1891, when the third set of American slides will be exhibited.

**FORMBY CAMERA CLUB.**—A meeting was held on the 15th inst. which took the form of a private exhibition of cameras and photographic apparatus, etc. Several of the leading makers were represented—Lancaster Special Instantograph, and a Ross half-plate camera, also Sharp and Hitchmough's hand-camera coming in for a special share of attention. Each of the exhibitors in turn held forth on the special virtues of his own particular fancy. The next ordinary meeting of this Society will be held on the 12th January, 1891, when the President (Mr. R. E. Maclean) will make a bromide enlargement with his enlarging camera and magnesium ribbon.

**GLASGOW AND WEST OF SCOTLAND AM: PHOT: ASSOC.**—The usual monthly meeting was held on the 15th inst., Mr. Archd. Watson, President, in the chair. The principal attraction was a paper on "Intensification," by Mr. W. Goodwin. Fifteen new members were admitted, making an increase of fifty since October. Office-bearers for 1891 were nominated, and slides by members shown through the lime-light lantern.

**LEAMINGTON AM: PHOT: SOC.**—At the meeting on the 19th inst., Mr. Aspa read a paper on Dr. Emerson's "Pictures of East Anglian Life," which was followed by a discussion.

**MORLEY AND DISTRICT AM: PHOT: SOC.**—A meeting was held in connection with the above Society on the 10th inst., the President (Mr. S. Atkinson) in the chair. The subject of the evening, "Flashlight," had to be postponed on account of the late hour the business was got through. It was subsequently resolved that on January 7th, being a lantern evening, invitations should be sent out to the members' friends and the élite of the town, to witness the exhibition of the "White Mountains" set of slides and **AMATEUR PHOTOGRAPHER** competitive pictures (Inland Scenery).

**NORTHAMPTONSHIRE NAT: HIST: SOC: PHOT: SECTION.**—A meeting was held on the 18th inst. Mr. M. Wetherell, M.A., read a paper on "Photographic Optics;" there was a good attendance, and the paper was of considerable interest and was listened to with marked attention.

**NOTTS AM: PHOT: SOC.**—The new club-rooms of this Association were opened at the ordinary meeting on the 15th inst. The Association, which was formed in December 1884, formerly had rooms over Mr. Peck's shop in the Market Street. These, however, not being suitable, the Association selected rooms over Mr. Warwick's, in the same street. These are much more comfortable, easy of access, and more suitable in every respect. The

walls of the rooms were covered with interesting photographs, the productions of different members of the Association, and the whole room looked pleasant and comfortable. The President (Mr. S. Wells) presided, and there was a fairly good muster of members and friends. The Chairman said that the room they had lately occupied had been a great drawback in the progress of the Society, but now they had removed into more convenient and pleasant quarters he hoped they would meet with a good measure of success. Mr. Henry Cooper, The Towers, Sninton, was nominated for membership, and Mr. Lancelot Allen was elected a member. Mr. G. E. Smith exhibited, by means of his oxy-hydrogen lantern, the slides of "Illustrated Boston, U.S.A.," also slides by members, including Mr. R. S. Armitage, Mr. Clements, and Mr. Forrester. Mr. Burrows' notice of motion was discussed, viz., that sons of members under eighteen be admitted at a reduced subscription, 5s. It was carried unanimously.

**SOUTH LONDON PHOT: SOC.**—At the meeting on the 19th inst., Mr. F. W. Edwards in the chair, three members were elected. The President imparted some valuable information on the art of improving weak negatives. A most interesting print of a group of members of the late South London Society was presented to the Society by Mr. Atkins, of Bromley, which, having been artistically framed by Mr. W. F. Slater, of Southampton Street, Camberwell, was duly laid before the members and accepted with acclamation.

**SPEN VALLEY PHOT: SOC.**—The monthly meeting of the members of this Society was held on the 9th inst., Dr. Farrow, President, in the chair. There was a pretty large gathering, including several lady friends, and the evening for the most part was devoted to the exhibition of lantern slides, which were thrown on the screen by means of Mr. B. H. Goldthorp's splendid lantern. Amongst the views shown were fifty from the **AMATEUR PHOTOGRAPHER**, sent in in connection with the No. 5 Competition; and others produced by members of the Society and lent by friends were also exhibited. During the evening the ordinary business of the Society was transacted, and several new members were admitted.

**TOYNBEE HALL CAMERA CLUB.**—On the 18th inst. the club had the pleasure of exhibiting the **AMATEUR PHOTOGRAPHER** prize set of slides at the annual meeting of the old students in connection with the university teaching at Toynbee Hall. The slides were a very fine set and much appreciated. The photographers present were very interested with the various tones obtained on the several makes of plates used. The President, Mr. L. M. Biden, gave an interesting description of most of the slides.

## To Correspondents.

THE insertion of **QUERIES** and **ANSWERS** is attended with much labour, and it is requested that the questions asked and the answers given shall be short and to the point. No charge is made.

All communications for these columns are to be addressed to **The Editor, "Amateur Photographer," 1, Creed Lane, Ludgate Hill, London, E.C.**

### RULES.

1. Write clearly and distinctly on one side of the paper only.
2. Write each Query or Answer on a separate sheet of paper.
3. Write the name and address legibly on the back of each communication, and sign all Queries and Answers with name or *nom de plume*.
4. All matters for these columns **MUST** be received by **TUESDAY MORNING'S POST**.
5. The Editor does not undertake to answer questions by post.
6. In answering Queries, correspondents are requested to mention, in every instance, the *number and full title of the query* referred to.

## QUERIES.

4417. **Stereoscopic Work.**—What is the difference between slides which are viewed in the ordinary

stereoscope and those which are not? What is the best form of stereoscope, at a reasonable price for ordinary work? What is the best magnification for viewing? Should the lenses be capable of lateral adjustment?—H. T.

4418. **Tricycle and Camera.**—What is the best type of tricycle at present obtainable for camera work, combining ease in working with strength as a roadster? Also what is the best form of carrier to use with a whole-plate kit, weighing about fifteen pounds, packed in square canvas case? Any information a favour. Are cushioned tyres reliable?—TOURIST.

4419. **Lantern Slides Wanted.**—Where can I procure about two dozen lantern slides, to illustrate a lecture on the Tyrol, Belgrade, the Danube, Constantinople (or thereabouts), also the Levant, Syria, Jaffa, Jerusalem? The lecture is to take place on 8th January, and if any one can lend me the slides I will consider it a great obligation. I would return the slides immediately after the lecture, and would be very careful about them. —Jno. M. LAINE.

## ANSWERS.

4217. **Clearing Varnish.**—I am afraid your varnish is useless. You might try shaking up with powdered glass, allowing to settle, and then carefully decanting off the upper part if it clears. —HELIX.

4250. **Intensification by Re-Development.**—*Vide* "Instruction in Photography," by Capt. Abney, eighth edition, page 82, or Wall's "Dictionary," second edition, page 129. Answer too long to insert here. —ALETES.

4260. **Enlarging Lantern.**—Hume's cantelever. Write for a descriptive pamphlet. —A. R. F. E.

4261. **Tinting Photographs.**—If you really wish to do this, you will find hints in "Art of Photographic Painting," by A. H. Bool, to be obtained from publishers of **AMATEUR PHOTOGRAPHER**. —ALETES.

4268. **Enlarging.**—When using an enlarging lantern as an ordinary optical lantern, the illumination would certainly be less. The image of the flame will show on the bromide enlargement when developed. The use of a piece of flashed opal glass, ground on the flashed side between condenser and negative, will reduce but even illumination. —THE SPHINX.

4270. **Dust on Lantern Slides.**—Watering the floor of the room has been suggested. As dust usually settles on the slides whilst drying, it is advisable to dry them in an airtight box. —THE SPHINX.

4275. **Copying and Enlarging.**—A fair apparatus for the money asked. You can find directions in "The Dictionary of Photography." —ALETES.

4297. **Films.**—(1) I think the rollable film is a trifle the quicker. (2) Not yet. (3) Yes, but cannot recommend except in the smaller sizes; it is difficult to keep them in register. I should advise England's or Thomas's in preference for cut sizes. —ALETES.

4310. **Perfection.**—Too much wanted. (1) The larger-sized Kodaks. (2) Not one. (3) Beck's Optimus. (4) Beck; Watson and Co. (5) Merely a matter of paying for it. (6) Ditto. (7) Loman's Reflex camera. —MEMNON.

4312. **Athletic Exercise.**—(1) Auschutz, Marey, and Muybridge are the only people who have ever done anything of this kind, but it is doubtful whether you could get prints. (2) None such published. —MEMNON.

4314. **Comic Views.**—Write to Mr. Chadwick, 2, St. Mary's Street, Manchester, he being an authority on the stereoscope. —ALETES.

4330. **Cardboard Dishes.**—Cut some paraffin wax into pieces the size of a nut, place on bottom of dish, and by means of a flat iron, used hot, but not too hot, melt them, and work the wax into corners and bottom; repeat this three times. Be careful not to scratch the dishes when in use. —ALETES.

4332. **Exposure Tables.**—If you find the tables you have used for years correct, why trouble about any others? You will not improve your photography by dodging about. —HELIX.

4334. **Clyde Views.**—Your only plan would be to



get slides from Wilson and Co., or Poulton's views, and copy them yourself.—MEMNON.

#### 4337. Celluloid Varnish for Negatives.—

Celluloid ... .. 30 gr.  
Amyl acetate ... .. 1 oz.  
4343. Tungstate of Soda, etc.—Both tungstate and sulpho-cyanide are poisonous, probably the latter by decomposition and evolution of cyanogen or hydrocyanic acid, commonly called prussic acid.—MEMNON.

4345. Kodak Films.—I have heard Thos. Illingworth, who advertises in the AMATEUR PHOTOGRAPHER, well spoken of.—ALETES.

4354. Combination Lens.—One angle only in rectilinear. The three focal lengths are 5 in., 8½ in., and 15 in. The 5 in. includes 77 degs., the 8½ includes 50 degs., the 15 in. includes 30 degs. The W. A. works at f/16, the 8½ in. at f/10, the 15 in. f/10.—MEMNON.

4357. Transferotype Paper.—There is no maker of this paper now, the Eastman Company having given up its manufacture some time ago.—MEMNON.

4361. Transferotype.—As far as my experience goes, no varnish is for ever impermeable to water. You might use any of the white crystal varnishes and give several coats, but if the globe is likely to get very hot you must look out for blisters.—HELIX.

4362. Bromide Paper.—For retouching bromide special pencils are sold by most dealers. Conté crayon Nos. 0, 1, and 2 are also suitable.—MEMNON.

4364. Copying.—Pin the carte against a wall shielded from direct light, erect your camera, and keep the back parallel with the carte-de-visite, focus in usual manner, and use small stop, giving long exposure. Unless your camera has long extension you will not be able to copy full size.—HELIX.

4367. Enlarging Apparatus.—Consult "The Dictionary of Photography."—ALETES.

4369. Spotting, etc.—Mix your colours with a solution of gelatine containing 5 gr. of chrome alum to the ounce, and allow to dry before mounting on glass.—OSIRIS.

4375. Printing Process.—Mr. G. Davison's pictures were, I believe, sepia-toned platinotype. You can closely approach this tone by following the instructions in his book on "Platinum Toning," using the bath for warm tones.—ALETES.

4400. Le Meritore.—1 and 2: The descriptions apply to quarter-plate size. (3) Lens equals 4½ in. focus. Good work can be done with it. See back numbers for scores of opinions.—OSIRIS.

4406. Borax.—I am now using a borax bath two years old. I occasionally replenish the borax, and before toning add 1½ gr. gold chloride for each sheet of bought paper, and the bath answers well.—HELIX.

4407. Tungstate.—Keeps fairly, but I should prefer the borax bath. The prints require somewhat further over-printing.—HELIX.

4408. Enlarging Apparatus.—I have just purchased one of Hume's Cantiliver enlarging lanterns, and am more than satisfied with it. The workmanship is good, there is no trouble in setting up, the focussing arrangement is marvellously easy, and the lantern gives a steady powerful light, without the horrible smoking tendencies of some lantern lamps. The whole thing seems admirably conceived, and is well executed.—A. O. NICHOLLS.

4411. Coloured Lantern Slides.—I have a set of twelve slides illustrating the "Mad Gardener's Song in Sylvie and Bruno," which I can lend to "Kappa," if his dates do not clash with mine. Per-

haps he will communicate with me.—L. M. BIDEA (address with Editor).

4411. Coloured Lantern Slides.—Any dealer in lantern slides would lend you the slides—Fry, Woods, Newtons, Hughes, Tyler, etc.—THE SPHINX.

4412. Distilled Water.—No; this water is nearly always full of impurities.—ALETES.

4413. Cloud Focus v. Equivalent Focus.—The amount of difference between the cloud focus and equivalent focus would be so small that it would be impossible to measure the same. You may, therefore, conclude that the two are equal.—MEMNON.

4414. Toning Aristotype Paper.—The combined toning and fixing bath supplied by the Blackfriars Photographic Company, seems to work better than Liesegang's formula. It does not discolour, beyond becoming slightly milky, and adding gold will keep it going for a long time.—HAMISH.

4415. Blisters on Prints.—By following the directions "H. F. C." has done, I think it would be almost impossible to get blisters. I do not think blisters arise through any defect in the paper, but solely in the manipulation. "H. F. C." does not mention what temperature his baths are. It does not, in my opinion, matter so much, so long as all the baths and washing waters are an even temperature. I toned a batch of prints the other day in a toning bath very cold, and the washing waters the same, and I had not a trace of blisters, not even those termed pin-points. I use the Perfect brand of paper.—HAMISH.

4416. Thin Negatives.—"T. W. B." really answers the question he asks himself, because thinness is caused both by over and under exposure. It is not, as a rule, due to the emulsion; but I have found lately that a well known and widely used plate is exceedingly thin in emulsion and poor in silver. I have had to use a more expensive plate in consequence. To prevent peeling, or frilling, which is the correct photographic word, a bath containing a saturated solution of alum must be used before and after fixing, and afterwards well washed.—HAMISH.

## EDITORIAL.

**SPECIAL NOTICE.**—We are very pleased to find that replies in this column are so much appreciated, but we should be very grateful if those requiring advice would send their letters to us BEFORE TUESDAY MORNING's post if possible. The time occupied in replying in this column is very considerable, and owing to the often late receipt of letters, many matters have to be left over each week. This we much regret.—ED: AM: PHOT.

**NOTE.**—Anyone requiring an opinion upon photographic apparatus, plates, etc., must give a number or initial for identification, as in no case will makers' names be inserted in this column.

N. A. C.—In the following order—6, 5, 4, 2, 3, 1. They are good lenses; but if you can spend the money buy of No. 2.

H. R. GLAZEBROOK.—(1) No. (2) We place in following order of merit—4, 6, 2, 3, 8, 5, 7. (3) We should advise a better class of instrument.

X. Y.—(1) Hardwicke's "Photographic Chemistry," 6s. We should advise you to practise by yourself, however, and let us see the results, and give you help. (2) Do not use an argometer. Make it 50 grains to the ounce, and add one-sixteenth of a grain of iodide of potassium to ounce, and about 1 drop of nitric acid.

MISS S. RIDLEY.—Will answer you next week; but we must destroy the print.

O. D.—You should certainly have got everything on the plate in focus. As it is now, the only part in focus is too far off to distinguish the peculiar character of the grove.

## Sale and Exchange.

**RULES.**—Fourpence for twelve words or less, and a penny for every additional three words, must be enclosed with each advertisement, together with the name and address of the sender, which must be paid for, and sent to Hazell, Watson, and Viney, Ltd., 1, Creed Lane, Ludgate Hill. Halfpenny Stamps preferred. A single figure, or group of figures undivided by letter, space, stop, or words, counts as one word; compound words count as two words.

**REPORTING UPON APPARATUS.**—The Editor of the AMATEUR PHOTOGRAPHER will be pleased to report, to any intending purchaser, upon apparatus etc., offered for sale in the "Sale and Exchange" column, provided such apparatus, etc., is forwarded by the seller to him to the offices of the AMATEUR PHOTOGRAPHER, 1, CREED LANE, LUDGATE HILL, LONDON, E.C., free of charge. The intending BUYER to pay a fee equivalent to a commission of 2½ per cent., the minimum being one shilling, upon the sale price of the apparatus, etc. The publishers will undertake the packing and sending of all goods at the cost of the SELLER. As far as possible, the Editor will undertake to send report a within TWO DAYS of receipt of goods.

### DEPOSITS.

Deposits for goods to be forwarded on approval may be made with our Publishers, who will hold the amounts deposited until they are satisfied that the transaction has been executed to the satisfaction of both parties. Cheques and Post Office Orders should be made payable to Hazell, Watson, and Viney, Ltd. A nominal charge of 1s. is made whether a sale is effected or not.

N.B.—Trade Advertisements cannot, under any circumstances, be inserted in this column. Such advertisements can be inserted elsewhere at the Trade Scale, which may be obtained on application to Parry and Crawford, 1, Creed Lane, Ludgate Hill, London, E.C.

Advertisements can be inserted under a number, the name and address being registered, and letters forwarded for a fee of 6d. to cover postage.

Sands and Hunter tourist camera, 13 by 18 centimetres, three double backs, waterproof case, tripod; £6. If desired, Eastman roll-holder to fit; £2.—R. P. 34, Upper Baker Street, London.

Cameras, Lenses, etc.—Lancaster's Meritore camera, lens, slide, and stand, good condition, also splendid violin, with bow and case; 45s.; deposit.—J. Thomas, 1, Grugos Terrace, Port Talbot.

Negatives.—Negatives on hire, quarter-plates, for slide making.—Particulars to D. Sweeney, Edenderry, King's Co.

Sundries.—Large-size medical battery, somewhat used, but good and powerful, in mahogany case; 20s.; or offers.—T. L. Arden, 11, Cleveland Road, Crumpsall, Manchester.

### WANTED.

Hand-Camera.—Hand-camera, cheap for cash, not smaller than quarter-plate.—Box 270, Post Office, Bradford.

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**PUBLISHING DEPARTMENT.**—All letters containing Subscriptions, Orders, Remittances, SALE AND EXCHANGE Advertisements, or other business matters for the Amateur Photographer are to be addressed to the Publishers, HAZELL, WATSON, AND VINEY, LTD., 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—SALE AND EXCHANGE Advertisements, at the charge of Three Words for One Penny, can be received as late as WEDNESDAY MORNING.

**ADVERTISEMENT DEPARTMENT.**—All communications respecting TRADE Advertisements in the Amateur Photographer are to be addressed to PARRY AND CRAWFORD, 1, CREED LANE, LUDGATE HILL, LONDON, E.C.

**NOTE.**—Trade Advertisements are received up to Tuesday morning.

**EDITORIAL DEPARTMENT.**—All Literary Contributions, Queries and Answers, Photographs for Competition or Criticism, Books or Apparatus for Notice or Review are to be addressed to the Editor, Amateur Photographer, 1, Creed Lane, Ludgate Hill, London, E.C.

**NOTE.**—To ensure insertion, all Communications should reach the Editor on Tuesday.

**CORRESPONDENCE SECTION.**—Anyone wishing to communicate with Contributors can do so by forwarding such Communication in stamped envelope under cover to the Editor, Amateur Photographer, 1, Creed Lane, Ludgate Hill, London, E.C.

## "AMATEUR PHOTOGRAPHER" MONTHLY PHOTOGRAPHIC COMPETITIONS.

The Proprietors of the AMATEUR PHOTOGRAPHER offer, Monthly, two prizes consisting of a

SILVER AND A BRONZE MEDAL (WITH RIBBON AND CLASP),

for the best and second-best photographs sent in to each of their Monthly Competitions. The subject of the Competitions will be as follows:—

No. 20.—PORTRAITURE and FIGURE STUDY ... .. Jan. 1.

" 21.—ANIMALS and INSTANTANEOUS SUBJECTS ... .. Feb. 1.

Only one print is to be sent in; the negative of the prize pictures shall be



at the service of the Proprietors, and all the prints sent in shall become the property of the Proprietors of the AM: PHOT:

All photographs for any of the above competitions will be acknowledged in the columns of the AMATEUR PHOTOGRAPHER.

All photographs criticised, and several reproduced every month, in the *Photographic Reporter*.

Entry forms on receipt of stamped addressed envelope. Apply to the Editor, *Amateur Photographer*, 1, Creed Lane, Ludgate Hill, London, E.C.

## SPECIAL COMPETITION,

ILLUSTRATING THE

### "SEVEN AGES OF MAN,"

As described in Shakespeare's Play "AS YOU LIKE IT" (Act II, Scene VII.)

FIRST PRIZE	...	GOLD MEDAL.
SECOND "	...	SILVER MEDAL.
THIRD "	...	BRONZE MEDAL.
FOURTH "	...	CERTIFICATE.

CONDITIONS:—That the Photographs shall be from life, in the costumes and with the surroundings of ordinary daily life. Photographs in which the subjects have been "got up" will be rejected.

The prints may be by any process. The prize photographs will become the property of the Proprietors of the AMATEUR PHOTOGRAPHER, who will have the right to call for the use of the negatives.

All the work must be done by the Competitor. The photographs are to be mounted, and the title, with quotation from the play neatly written or printed upon the mount. Each photograph is to be numbered in the order of the "Ages."

All contributions must be received on or before Saturday, 31st January, 1891, addressed:—"Seven Ages of Man,"

EDITOR:—AMATEUR PHOTOGRAPHER,

1, Creed Lane, London, E.C.

## "AMATEUR PHOTOGRAPHER"

### MONTHLY LANTERN SLIDE COMPETITION.

Prizes:

SILVER AND BRONZE MEDAL AND CERTIFICATE.

	First Competition.	LAST DAY.
LANDSCAPE, SEASCAPE, AND RIVER SCENERY	..	Jan. 22nd.
	Second Competition.	
PORTRAITURE AND FIGURE STUDIES..	..	Feb. 19th.
	Third Competition.	
ANIMALS AND INSTANTANEOUS PICTURES ..	..	Mar. 19th
	Fourth Competition.	
ARCHITECTURE (INTERIOR AND EXTERIOR)..	..	April 16th.

The Competitions will be resumed in September.

CONDITIONS.—Each competitor must send in two slides. Any competitor winning a Silver Medal will be disqualified from entering the subsequent Monthly Lantern Slide Competitions. The winner of Bronze Medal or Certificate can only compete for the higher prize or prizes in subsequent competitions.

The awards will be published in the AMATEUR PHOTOGRAPHER, and a general note given upon each competition.

The slides of competitors which do not gain a prize will be divided into three classes, according to merit, and the competitors' names, etc., published in the *Photographic Reporter*.

All slides entered for competition to become the property of the AMATEUR PHOTOGRAPHER.

NOTE.—The slides will be passed through the lantern at the Office of the AMATEUR PHOTOGRAPHER on the Monday evening in each month immediately after the date upon which the slides have to be received.

Particulars as to admission, and entry forms, may be had by forwarding stamped directed envelope to

THE EDITOR,

"AMATEUR PHOTOGRAPHER,"

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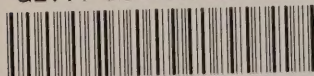








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